National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : OORJA TECHNICAL SERVICES PRIVATE LIMITED, 501-503, 520 BLOCK MS1-A NEW SIYAGANJ, INDORE, MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

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Validity 24/05/2025 to 23/05/2029 **Last Amended on** 03/06/2025

S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
Permanent Testing				
1	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Appearance	IS 1866
2	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Appearance	IS 335
3	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Breakdown Voltage	IEC 60156
4	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Breakdown Voltage	IS 1866 (Clause 5.3)
5	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Breakdown Voltage	IS 6792
6	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Colour	"Withdrawn Standard" IS 1866
7	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Density	IS 1448 (Part 16)
8	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Density	IS 1866 (Clause 5.14)
9	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Density	ISO 3675
10	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dielectric Dissipation Factor	IS 16840
11	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dielectric Dissipation Factor	IEC 60247
12	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dielectric Dissipation Factor	IS 1866 (Clause 5.6)
13	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dielectric Dissipation Factor	IS 6262
14	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H2-Acetylene)	ASTM D3612 (Headspace Extraction Method)

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15	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H2-Acetylene)	IEC 60567 (Headspace Extraction Method)
16	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H2-Acetylene)	IEC 60599 (Headspace Extraction Method)
17	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H2-Acetylene)	IS 10593 (Headspace Extraction Method)
18	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H2-Acetylene)	IS 9434 (Headspace Extraction Method)
19	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H4-Ethylene)	ASTM D3612 (Headspace Extraction Method)
20	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H4-Ethylene)	IEC 60567 (Headspace Extraction Method)
21	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H4-Ethylene)	IEC 60599 (Headspace Extraction Method)
22	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H4-Ethylene)	IS 10593 (Headspace Extraction Method)
23	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H4-Ethylene)	IS 9434 (Headspace Extraction Method)
24	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H6-Ethane)	ASTM D3612 (Headspace Extraction Method)
25	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H6-Ethane)	IEC 60567 (Headspace Extraction Method)
26	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H6-Ethane)	IEC 60599 (Headspace Extraction Method)
27	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H6-Ethane)	IS 10593 (Headspace Extraction Method)
28	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C2H6-Ethane)	IS 9434 (Headspace Extraction Method)

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29	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H6-Propylene)	ASTM D3612 (Headspace Extraction Method)
30	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H6-Propylene)	IEC 60567 (Headspace Extraction Method)
31	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H6-Propylene)	IEC 60599 (Headspace Extraction Method)
32	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H6-Propylene)	IS 10593 (Headspace Extraction Method)
33	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H6-Propylene)	IS 9434 (Headspace Extraction Method)
34	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H8-Propane)	ASTM D3612 (Headspace Extraction Method)
35	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H8-Propane)	IEC 60567 (Headspace Extraction Method)
36	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H8-Propane)	IEC 60599 (Headspace Extraction Method)
37	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H8-Propane)	IS 10593 (Headspace Extraction Method)
38	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (C3H8-Propane)	IS 9434 (Headspace Extraction Method)
39	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CH4-Methane)	ASTM D3612 (Headspace Extraction Method)
40	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CH4-Methane)	IEC 60567 (Headspace Extraction Method)
41	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CH4-Methane)	IEC 60599 (Headspace Extraction Method)
42	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CH4-Methane)	IS 10593 (Headspace Extraction Method)

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S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
43	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CH4-Methane)	IS 9434 (Headspace Extraction Method)
44	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO - Carbon Monoxide)	IS 9434 (Headspace Extraction Method)
45	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO2-Carbon Dioxide)	IS 9434 (Headspace Extraction Method)
46	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO2-Carbon Dioxide)	ASTM D3612 (Headspace Extraction Method)
47	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO2-Carbon Dioxide)	IEC 60567 (Headspace Extraction Method)
48	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO2-Carbon Dioxide)	IEC 60599 (Headspace Extraction Method)
49	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO2-Carbon Dioxide)	IS 10593 (Headspace Extraction Method)
50	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO-Carbon Monoxide)	ASTM D3612 (Headspace Extraction Method)
51	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO-Carbon Monoxide)	IEC 60567 (Headspace Extraction Method)
52	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO-Carbon Monoxide)	IEC 60599 (Headspace Extraction Method)
53	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (CO-Carbon Monoxide)	IS 10593 (Headspace Extraction Method)
54	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (H2-Hydrogen)	ASTM D3612 (Headspace Extraction Method)
55	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (H2-Hydrogen)	IEC 60567 (Headspace Extraction Method)
56	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (H2-Hydrogen)	IEC 60599 (Headspace Extraction Method)

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S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
57	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (H2-Hydrogen)	IS 10593 (Headspace Extraction Method)
58	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (H2-Hydrogen)	IS 9434 (Headspace Extraction Method)
59	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (N2-Nitrogen)	ASTM D3612 (Headspace Extraction Method)
60	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (N2-Nitrogen)	IEC 60567 (Headspace Extraction Method)
61	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (N2-Nitrogen)	IEC 60599 (Headspace Extraction Method)
62	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (N2-Nitrogen)	IS 10593 (Headspace Extraction Method)
63	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (N2-Nitrogen)	IS 9434 (Headspace Extraction Method)
64	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (O2-Oxygen)	ASTM D3612 (Headspace Extraction Method)
65	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (O2-Oxygen)	IEC 60567 (Headspace Extraction Method)
66	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (O2-Oxygen)	IEC 60599 (Headspace Extraction Method)
67	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (O2-Oxygen)	IS 10593 (Headspace Extraction Method)
68	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolve Gas Analysis (O2-Oxygen)	IS 9434 (Headspace Extraction Method)
69	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Flash Point	IS 1448 (Part 21)
70	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Flash Point	IS 1866 (Clause 5.11)

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71	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Flash Point	ISO 2719
72	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Interfacial Tension	ASTM D971
73	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Interfacial Tension	IS 1866 (Clause 5.9)
74	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Interfacial Tension	IS 6104
75	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Neutralization Value	IS 1448 (Part 2)
76	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Neutralization Value	IS 1866 (Clause 5.5)
77	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Neutralization Value	ISO 6619
78	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Pour Point	IS 1448 (Part 10/Sec 2)
79	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Pour Point	IS 1866 (Clause 5.13)
80	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Pour Point	ISO 3016
81	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Sediments & Sludge	IS 1866
82	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Sediments & Sludge	IS 1866 (Clause 5.8)
83	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Specific Resistance (Resistivity)	IS 16840
84	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Specific Resistance (Resistivity)	IEC 60247

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85	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Specific Resistance (Resistivity)	IS 1866 (Clause 5.6)
86	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Specific Resistance (Resistivity)	IS 6103
87	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 100°C	IS 1448 (Part 25)
88	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 100°C	IS 1448 (Part 25/Sec 1)
89	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 100°C	IS 1866 (Clause 5.15)
90	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 100°C	IS 335
91	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 100°C	ISO 3104
92	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 40°C	IS 1448 (Part 25)
93	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 40°C	IS 1448 (Part 25/Sec 1)
94	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 40°C	IS 1866 (Clause 5.15)
95	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 40°C	IS 335
96	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Viscosity at 40°C	ISO 3104
97	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Water Content	IEC 60814
98	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Water Content	IS 13567

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99	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Water Content	IS 1866 (Clause 5.4)

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Site Testing				
1	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	AC Voltage Test	IS 16444
2	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	Initial Start-up of the Meter	IS 16444
3	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	Insulation Test	IS 16444
4	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	Limits of Error Due to other Influence Quantities - Frequency Variation Test, Voltage Variation Test, Reverse Phase Sequence (For 3-Ø Meter), Voltage Unbalance Test (For 3-Ø Meter), Wave Form 10% of Third Harmonic in The Current Test	IS 16444
5	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	Limits of Error due to Variation of the current/ Accuracy Test	IS 16444
6	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	Meter Constant Test	IS 16444
7	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	No-load Condition Test	IS 16444
8	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	Power Consumption Test (During the idle mode of communication module)	IS 16444
9	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	Repeatability of Error Test	IS 16444
10	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Direct Connected Watthour Smart Meter (Class 1 & 2)	Starting Condition Test	IS 16444

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11	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	AC Voltage Test	IS 16444 (Part 2)
12	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	Initial Start-up of the Meter	IS 16444 (Part 2)
13	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	Insulation Test	IS 16444 (Part 2)
14	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	Limits of Error Due to other Influence Quantities - Frequency Variation Test, Voltage Variation Test, Reverse Phase Sequence, Voltage Unbalance Test, Wave Form 10% of Third Harmonic in The Current Test	IS 16444 (Part 2)
15	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	Meter Constant Test	IS 16444 (Part 2)
16	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	No-load Condition Test	IS 16444 (Part 2)
17	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	Power Consumption Test (During the idle mode of communication module)	IS 16444 (Part 2)
18	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	Repeatability of Error Test	IS 16444 (Part 2)
19	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	Starting Condition Test	IS 16444 (Part 2)
20	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour and Var Hour Smart Meters (Class 0.2s, 0.5s & 1.0s)	Limits of Error due to Variation of the current/ Accuracy Test	IS 16444 (Part 2)

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21	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	AC Voltage Test	IS 14697 (Clause 12.7.6.3)
22	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	Initial Start-up of the Meter	IS 14697 (Clause 11.4.1)
23	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	Insulation Test	IS 14697 (Clause 12.7.6.4)
24	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	Limits of Error Due to other Influence Quantities - Frequency Variation Test, Voltage Variation Test, Reverse Phase Sequence, Voltage Unbalance Test, Wave Form 10% of Third Harmonic in The Current Test	IS 14697 (Clause 11.2)
25	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	Limits of Error due to Variation of the current/ Accuracy Test	IS 14697 (Clause 11.1)
26	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	Meter Constant Test	IS 14697 (Clause 12.14)
27	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	No-load Condition Test	IS 14697 (Clause 12.12)
28	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	Power Consumption Test	IS 14697 (Clause 12.7.1)
29	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	Repeatability of Error Test	IS 14697 (Clause 12.16)
30	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer Operated Watthour Meters and Var-Hour Meters (Class 0.2s, 0.5s & 1.0s)	Starting Condition Test	IS 14697 (Clause 12.13)

National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : OORJA TECHNICAL SERVICES PRIVATE LIMITED, 501-503, 520 BLOCK MS1-A NEW SIYAGANJ, INDORE, MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11691 **Page No** 12 of 13

Validity 24/05/2025 to 23/05/2029 **Last Amended on** 03/06/2025

S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
31	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	Limits of Error due to Variation of the current/ Accuracy Test	IS 13779 (Clause 11.1)
32	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	AC Voltage Test	IS 13779 (Clause 12.7.6.3)
33	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	Initial Start-up of the Meter	IS 13779 (Clause 11.4.1)
34	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	Insulation Test	IS 13779 (Clause 12.7.6.4)
35	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	Limits of Error Due to other Influence Quantities - Frequency Variation Test, Voltage Variation Test, Reverse Phase Sequence, Voltage Unbalance Test, Wave Form 10% of Third Harmonic in The Current Test	IS 13779 (Clause 11.2)
36	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	Meter Constant Test	IS 13779 (Clause 12.15)
37	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	No-load Condition Test	IS 13779 (Clause 12.13)
38	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	Power Consumption Test	IS 13779 (Clause 12.7.1)
39	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	Repeatability of Error Test	IS 13779 (Clause 12.17)
40	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter (Class 1 & 2)	Starting Condition Test	IS 13779 (Clause 12.14)

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S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
41	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer - (Primary Range 1A to 3200A)	(Accuracy Test) Ratio & Phase Error - According to the Requirement of Appropriate Accuracy Class	"Withdrawn Standard" IS 2705 (Part 2) Clause 7.1.1, 7.2.1 & IS 2705 (Part 3) Clause 7.1.1
42	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer - (Primary Range 1A to 3200A)	(Accuracy Test) Ratio & Phase Error - According to the Requirement of Appropriate Accuracy Class	IS 16227 (Part 2) Clause 7.2.6 & 7.3.5
43	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer - (Primary Range 1A to 3200A)	Terminal Marking & Polarity Test According to the Requirement of Appropriate Accuracy Class	"Withdrawn Standard" IS 2705 (Part 2) Clause 6 & IS 2705 (Part 1) Clause 9.2
44	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer - (Primary Range 1A to 3200A)	Terminal Marking & Polarity Test According to the Requirement of Appropriate Accuracy Class	IS 16227 (Part 1) Clause 7.3.6 & IS 16227 (Part 2) Clause 6.13.201
45	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage Transformer - (Primary Range 220 V to 33 kV)	(Accuracy Test) Ratio & Phase Error - According to the Requirement of Appropriate Accuracy Class	IS 16227 (Part 3, 4 & 5) Clause 7.2.6 & 7.3.5
46	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage Transformer - (Primary Range 220 V to 33 kV)	(Accuracy Test) Ratio & Phase Error - According to the Requirement of Appropriate Accuracy Class	"Withdrawn Standard" IS 3156 (Part 2 & 3) Clause 5, 6, 8
47	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage Transformer - (Primary Range 220 V to 33 kV)	Terminal Marking & Polarity Test According to the Requirement of Appropriate Accuracy Class	"Withdrawn Standard" IS 3156 (Part 1 & 2), Clause 7 & 8
48	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage Transformer - (Primary Range 220 V to 33 kV)	Terminal Marking & Polarity Test According to the Requirement of Appropriate Accuracy Class	IS 16227 (Part 3 & 5) Clause 6.13