National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSFORMER OIL ANALYSIS LABORATORY, 66 KV GRID SUBSTATION BUILDING, PP-2 GRID, POLICE LINES, PITAMPURA, NEW DELHI, DELHI, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11753 **Page No** 1 of 4

Validity 07/06/2023 to 06/06/2025 **Last Amended on** -

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 Facility				
1	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Appearance	IS 16659
2	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Appearance	IS 335
3	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Breakdown Voltage	Clause No. 4.3.1 of IS 16659
4	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Breakdown Voltage	Clause No. 5.3 of IS 1866
5	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Breakdown Voltage	Clause No. 6.4 of IS 335
6	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Breakdown Voltage	IS 6792
7	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Corrosive Sulphur	Clause No. 4.4.2 of IS 16659
8	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Corrosive Sulphur	Clause No. 5.17 of IS 1866
9	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Corrosive Sulphur	IS 16310
10	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Denisty	Clause No. 4.2.5 of IS 16659
11	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Density	Clause No. 6.16 of IS 335
12	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Density	IS:1448 (P-16)
13	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Density	IS:1448 (P-16)

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Certificate Number TC-11753 **Page No** 2 of 4

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14	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dielectric Dissipation Factor (Tan Delta)	Clause No. 4.3.2 of IS 16659
15	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dielectric Dissipation Factor (Tan Delta)	Clause No. 5.6 of IS 1866
16	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dielectric Dissipation Factor (Tan Delta)	Clause No. 6.5 of IS 335
17	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dielectric Dissipation Factor (Tan Delta)	IEC 60247
18	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dielectric Dissipation Factor (Tan Delta)	IS 6262
19	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dissolved Gas Analysis (Acetylene)	IS 10593 and IS 9434
20	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dissolved Gas Analysis (Carbon Dioxide)	IS 10593 and IS 9434
21	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dissolved Gas Analysis (Carbon Monoxide)	IS 10593 and IS 9434
22	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dissolved Gas Analysis (Ethane)	IS 10593 and IS 9434
23	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dissolved Gas Analysis (Ethylene)	IS 10593 and IS 9434
24	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dissolved Gas Analysis (Hydrogen)	IS 10593 and IS 9434
25	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dissolved Gas Analysis (Methane)	IS 10593 and IS 9434
26	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dissolved Gas Analysis (Nitrogen)	IS 10593 and IS 9434
27	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Dissolved Gas Analysis (Oxygen)	IS 10593 and IS 9434

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Certificate Number TC-11753 **Page No** 3 of 4

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28	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Flash Point	Clause No. 4.6.1 of IS 16659
29	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Flash Point	Clause No. 6.15 of IS 335
30	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Flash Point	IS:1448 (P-21)
31	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Furan Analysis	Clause No. 6.19 of IS 335
32	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Furan Analysis	IS 15668
33	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Inhibitor Content	IS 13631 (Method A)
34	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Interfacial Tension	Clause No. 5.9 of IS 1866
35	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Interfacial Tension	IS 6104
36	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Kinematic Viscosity	Clause No. 4.5.3 of IS 16659
37	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Kinematic Viscosity	Clause No. 6.1 of IS 335
38	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Kinematic Viscosity	IS 1448 : Part 25 : Sec 1
39	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Neutralization Value (Acidity)	Clause No. 5.5 of IS 1866
40	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Neutralization Value (Acidity)	IS 1448 : Part 2
41	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Neutralization Value (Acidity)	IS 16863 : Part 2

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Certificate Number TC-11753 **Page No** 4 of 4

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42	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Neutralization Value (Acidity)	IS 16863 : Part 3
43	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Pour Point	Clause No. 4.2.3 of IS 16659
44	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Pour Point	Clause No. 6.2 of IS 335
45	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Pour Point	IS 1448 : Part 10 : Sec 2
46	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Resistivity	Clause No. 5.6 of IS 1866
47	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Resistivity	IEC 60247
48	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Resistivity	IS:6103
49	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Sediment Content	IS 1866 (Annex C)
50	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Water Content	Clause No. 4.2.4 of IS 16659
51	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Water Content	Clause No. 5.4 of IS 1866
52	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Water Content	Clause No. 6.3 of IS 335
53	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Water Content	IS 13567