National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSFORMER TESTING LABORATORY TESLA TRANSFORMERS INDIA LTD, 23-A SECTOR-B INDUSTRIAL AREA, BHOPAL, MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

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Validity 27/12/2021 to 26/12/2023 **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- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Check of phase displacement	IEC 60076
2	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Check of phase displacement	IS 2026 (Part 1)
3	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Determination of capacitance between windings to earth & between windings	IEC 60076 (Part 1)
4	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Determination of capacitance between windings to earth & between windings	IS 2026 (Part 1)
5	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Determination of sound level	IEC 60076 (Part 10)
6	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Determination of sound level	IS 2026 (Part 10)
7	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Determination of sound level	NEMA TR 1
8	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Determination of transient voltage transfer characteristics	IEC 60076 (Part 3)
9	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Determination of transient voltage transfer characteristics	IS 2026 (Part 3)
10	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Induced over voltage test with partial discharge measurement (IVPD)	IS 2026 (Part 3)
11	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Induced voltage test (IVW)	IEC 60076 (Part 3)
12	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Induced voltage test (IVW)	IS 2026 (Part 3)
13	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Induced voltage test with partial discharge measurement (IVPD)	IEC 60076 (Part 3)
14	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Lightning impulse tests (LI, LIC, LIN)	IEC 60076 (Part3)
15	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Lightning impulse tests (LI, LIC, LIN)	IS 2026 (Part 1)
16	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Line terminal AC withstand test (LTAC)	IEC 60076 (Part 3)
17	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Line terminal AC withstand test (LTAC)	IS 2026 (Part 3)

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18	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Magnetic balance test	CBIP manual no. 317
19	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of dissipation factor (Tan delta) of the insulation system capacitance	IEC 60076 (Part 1)
20	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of dissipation factor (Tan delta) of the insulation system capacitance	IS 2026 (Part 1)
21	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of harmonics of No load current	IS 2026 (Part 1)
22	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of harmonics of No load current	IEC 60076 (Part 1)
23	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of insulation resistance	IEC 60076 (Part -1):
24	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of insulation resistance	IS 2026 (PART 1)
25	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of load loss	IEC 60076 (Part 1)
26	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of load loss	IS 2026 (Part 1)
27	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of No load current	IEC 60076 (Part 1)
28	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of No load current	IS 2026
29	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of No load loss	IEC 60076 (Part 1)
30	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of No load loss	IS 2026 (Part 1)
31	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of power taken by the fan & oil pump motors	IEC 60076 (Part 1)
32	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of power taken by the fan & oil pump motors	IS 2026 (Part 1)
33	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of short circuit impedance	IEC 60076 (Part 1)
34	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of short circuit impedance	IS 2026
35	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of voltage ratio	IEC 60076 (PART 1)

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36	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of voltage ratio	IS 2026 (PART 1)
37	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of winding resistance	IEC 60076 (Part 1)
38	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of winding resistance	IS 2026
39	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of zero sequence impedance(s) of three phase transformer	IEC 60076 (Part 1)
40	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Measurement of zero sequence impedance(s) of three phase transformer	IS 2026 (Part 1)
41	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Over excitation test	CBIP Manual Pub 317
42	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Over excitation test	IEC 60076 (Part 1)
43	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Pressure test	CBIP Manual Pub. 317
44	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Pressure test	IEC 60076 (Part 1)
45	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Pressure test	IS 1180 (Part 1)
46	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Separate source AC withstand voltage test / Applied voltage test	IEC 60076 (Part 3)
47	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Separate source AC withstand voltage test / Applied voltage test	IS 2026 (Part 3)
48	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Sweep Frequency Response Analysis (SFRA)	IEC 60076 (Part18)
49	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Sweep Frequency Response Analysis (SFRA)	IS 2026 (PART 18)
50	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Switching Impulse test	IEC 60076 (Part 3)
51	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Switching Impulse test	IS 2026 (Part 3)
52	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Temperature rise test	IEC 60076 (Part 2)

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53	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Temperature rise test	IS 2026 (Part 2)
54	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Test on on-load tap changer	IEC 60076 (Part 1)
55	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Test on On-load tap changer	IS 2026 (Part 1)
56	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Vacuum test	CBIP Manual Pub no. 317
57	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers from 2.5 MVA to 50 MVA, upto 132 KV, 1 phase and 3 phase, 50 Hz	Vacuum test	IEC 60076 (Part 1)
58	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Check of phase displacement	IEC 60076 (Part 1)
59	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Check of phase displacement	IS 11171
60	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Check of Phase displacement	IS 1180 (Part 1)
61	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Check of Phase displacement	IS 2026 (Part 1)
62	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Determination of capacitance between windings to earth & between windings	IEC 60076 (Part 1)
63	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Determination of capacitance between windings to earth & between windings	IS 11171
64	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Determination of capacitance between windings to earth & between windings	IS 2026 (Part 1)
65	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Determination of sound level	IEC 60076 (Part 10)
66	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Determination of sound level	IS 2026 (Part 10)
67	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Determination of sound level	NEMA TR 1
68	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Induced AC voltage test (IVW)	IEC 60076 (Part 3)
69	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Induced AC voltage test (IVW)	IS 11171
70	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Induced AC voltage test (IVW)	IS 1180 (Part 1)

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71	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Induced AC voltage test (IVW)	IS 2026 (Part 3)
72	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Lightning impulse tests (LI, LIC, LIN)	IEC 60076 (Part3)
73	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Lightning impulse tests (LI, LIC, LIN)	IS 11171
74	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Lightning impulse tests (LI, LIC, LIN)	IS 1180 (Part 1)
75	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Lightning impulse tests (LI, LIC, LIN)	IS 2026 (Part 3)
76	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Magnectic balance test	CBIP manual no. 317
77	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of dissipation factor (Tan delta) of insulation system capacitance	IS 2026 (Part 1)
78	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of dissipation factor (Tan delta) of the insulation system capacitance	IEC 60076 (Part 1)
79	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of dissipation factor (tan delta) of the insulation system capacitance	IS 11171
80	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of harmonics of No load current	IEC 60076 (Part 1)
81	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of harmonics of No load current	IS 11171
82	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of harmonics of No load current	IS 2026 (Part 1)
83	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of insulation resistance	IEC 60076 (PART 1)
84	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of insulation resistance	IS 11171
85	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of insulation resistance	IS 1180 (Part-1)
86	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of insulation resistance	IS 2026 (Part-1)
87	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of load loss	IEC 60076 (Part 1)
88	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of Load loss	IS 11171

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89	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of load loss	IS 1180 (Part 1)
90	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of Load loss	IS 2026 (Part 1)
91	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of No load current	IEC 60076
92	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of No load current	IS 11171
93	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of No load Current	IS 1180
94	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of No load Current	IS 2026 (Part 1)
95	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of No load Loss	IEC 60076 (Part1)
96	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of No load loss	IS 11171
97	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of No load loss	IS 1180
98	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of No load loss	IS 2026 (Part 1)
99	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of short circuit impedance	IEC 60076 (Part 1)
100	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of short circuit impedance	IS 11171
101	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of short circuit impedance	IS 1180 (Part 1)
102	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of short circuit impedance	IS 2026 (Part1)
103	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of voltage ratio	IEC 60076 (Part 1)
104	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of Voltage ratio	IS 11171
105	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of voltage ratio	IS 1180 (Part 1)
106	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of voltage ratio	IS 2026 (Part1)
107	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of Winding resistance	IEC 60076 (Part 1)

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108	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of winding resistance	IS 11171
109	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of winding resistance	IS 1180 (Part 1)
110	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of winding resistance	IS 2026 (Part 1)
111	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of zero sequence impedance(s) of three phase transformer	IEC 60076 (Part 1)
112	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of zero sequence impedance(s) of three phase transformer	IS 11171
113	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Measurement of zero sequence impedance(s) of three phase transformer	IS 2026 (Part 1)
114	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Over excitation test	CBIP Manual pub. 317
115	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Over excitation test	IEC 60076 (part 1)
116	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Permissible flux density	IS 1180 (Part 1)
117	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Pressure test	CBIP Manual Pub. 317
118	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Pressure test	IEC 60076 (Part 1)
119	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Pressure test	IS 1180 (Part 1)
120	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Separate source AC withstand voltage test / Applied voltage test	IEC 60076 (Part 3)
121	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Separate source AC withstand voltage test / Applied voltage test	IS 11171
122	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Separate source AC withstand voltage test / Applied voltage test	IS 1180 (Part 1)
123	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Separate source AC withstand voltage test / Applied voltage test	IS 2026 (Part 3)

SCOPE OF ACCREDITATION

Laboratory Name : TRANSFORMER TESTING LABORATORY TESLA TRANSFORMERS INDIA LTD, 23-A SECTOR-B INDUSTRIAL AREA, BHOPAL, MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7633 **Page No** 8 of 8

Validity 27/12/2021 to 26/12/2023 **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
124	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Sweep Frequency Response Analysis (SFRA)	IEC 60076
125	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Sweep Frequency Response Analysis (SFRA)	IS 2026 (Part 18)
126	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Temperature rise test	IEC 60076 (Part 2)
127	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Temperature rise test	IS 11171
128	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Temperature rise test	IS 1180 (Part 1)
129	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Temperature rise test	IS 2026 (Part 2)
130	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Test on on-load tap changer	IEC 60076 (Part 1)
131	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Test on on-load tap changer	IS 2026 (Part 1)
132	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Vacuum test	CBIP Manual Pub no. 317
133	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Vacuum test	IEC 60076 (Part 1)
134	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers upto 2.5 MVA, 33 KV, 1 phase & 3 phase, 50 Hz	Vacuum test	IS 1180 (Part 1)
135	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oil	Break down voltage (BDV)	IEC 60156
136	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oil	Break down voltage test (BDV)	IS 6792