National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : HV TEST LABORATORY, SIEMENS LTD., TRANSFORMER WORKS, THANE BELAPUR ROAD, AIROLI POST OFFICE, AIROLI, NAVI MUMBAI, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-8051 **Page No** 1 of 9

Validity 15/10/2021 to 14/10/2023 **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	HVDC transformers, 500MVA, 800kV	DC Applied Voltage Test	IEC/IEEE 60076-57-129
2	ELECTRICAL- INDUCTORS & TRANSFORMERS	HVDC transformers, 500MVA, 800kV	Measurement of load loss at higher frequency	IEC/IEEE 60076-57-129
3	ELECTRICAL- INDUCTORS & TRANSFORMERS	HVDC transformers, 500MVA, 800kV	Polarity Reversal Test	IEC/IEEE 60076-57-129
4	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Chopped wave lightning impulse test	IEC 60076-3
5	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Induced voltage test with PD measurement (IVPD)	IEC 60076-3
6	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Induced voltage test with PD measurement (IVPD)	IS 2026-3
7	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Lightning impulse test	IS 2026-3
8	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Line terminal AC withstand voltage test (LTAC)	IEC 60076-3
9	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Line terminal AC withstand voltage test (LTAC)	IS 2026-3
10	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of acoustic sound level	IEC 60076-10
11	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of acoustic sound level	IS 2026-10
12	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of Impedance at low voltage	CBIP Publication GP 317
13	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of load loss	IS 2026-01
14	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of load Loss	IEC 60076-1

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-8051 **Page No** 2 of 9

Validity 15/10/2021 to 14/10/2023 **Last Amended on** -

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15	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of Magnetizing Current at low voltage	CBIP Publication GP 317
16	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of No Load Loss & Current	IS 2026-1
17	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of No Load Loss & Current	IEC 60076-1
18	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of short-circuit impedance	IS 2026-01
19	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of Short-Circuit Impedance	IEC 60076-1
20	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of Transfer Surge on LV (Tertiary) due to Switching Impulse on HV & IV	IEC 60076-3
21	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of Transfer Surge on LV (Tertiary) due to Switching Impulse on HV & IV	IS 2026-3
22	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of Transfer Surge on LV (Tertiary) due to Lighting Impulse on HV & IV	IEC 60076-3
23	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of Transfer Surge on LV(Tertiary) due to Lighting Impulse on HV & IV	IS 2026-3
24	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Measurement of Voltage Ratio	IEC 60076-01
25	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Switching impulse test	IEC 60076-3
26	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Switching Impulse test	IS 2026-3
27	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Temperature rise test	IEC 60076-2
28	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Temperature rise test	IS 2026-2

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29	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Tests on On Load Tap Changer	IS 2026-01
30	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Tests on On Load Tap Changer	IEC 60076-01
31	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV	Verification of Vector group for 3 phase transformers/ Polarity check for 1 phase transformers	IEC 60076-1
32	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Applied voltage test	IEC 60076-3
33	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Applied voltage test	IS 2026-3
34	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Auxiliary wiring insulation test	IEC 60076-3
35	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Check of bushing CT knee point test	IEC 60076-1
36	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Check of bushing CT ratio	IEC 60076-1
37	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Core frame insulation test (AC)	CBIP Publication GP 317
38	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Core frame insulation test (DC)	IEC 60076-1
39	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of capacitance & tan delta	IEC 60076-1

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-8051 **Page No** 4 of 9

Validity 15/10/2021 to 14/10/2023 **Last Amended on** -

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40	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of capacitance & tan delta	IEC 60076-1
41	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of capacitance & tan delta	IS 2026-1
42	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of capacitance & tan delta	IS 2026-1
43	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of current harmonics	IEC 60076-1
44	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of current harmonics	IS 2026-1
45	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of Insulation Resistance & Polarization Index	IEC 60076-1
46	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of Winding Resistance	IEC 60076-1
47	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of zero sequence impedances on three phase transformer/reactor	IEC 60076-1
48	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of zero sequence impedances on three phase transformer/reactor	IS 2026-1
49	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	SFRA test	IEC 60076-18
50	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers 500MVA,1200kV (Single phase) & 1000MVA, 500kV(Three phase), HVDC transformers 500MVA, 800kV, Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Thermo Vision Scanning of Transformer / Reactor	CBIP Publication GP 317

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-8051 **Page No** 5 of 9

Validity 15/10/2021 to 14/10/2023 **Last Amended on** -

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51	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power & Auto Transformers,1000MVA, 500kV(Three phase)	Magnetic Balance test on three phase Transformer	CBIP Publication GP 317
52	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Chopped wave lightning impulse test	IEC 60076-6
53	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Induced AC withstand voltage test	IEC 60076-6
54	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of acoustic sound level	IEC 60076-6
55	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of loss	IEC 60076-6
56	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of magnetization characteristics	IEC 60076-6
57	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of Reactance	IEC 60076-6
58	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of stress-strain	IEC 60076-6
59	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Measurement of vibration	IEC 60076-6
60	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Switching impulse test	IEC 60076-6
61	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 125MVAr, 800kV (Single phase) & 200MVAr, 500kV (Three phase)	Temperature rise test	IEC 60076-6
62	ELECTRICAL- INDUCTORS & TRANSFORMERS	Shunt reactor 200MVAr, 500kV (Three phase)	Measurement of Mutual reactance on three phase reactor	IEC 60076-6
63	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oil	Density	IS 1448 P:16
64	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Density	ISO 3675
65	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dielectric Dissipation Factor (Tan d)	IEC 60247
66	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dielectric Dissipation Factor (Tan d)	IS 6262
67	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Acetylene (C2H2)	IEC 60567

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Certificate Number TC-8051 **Page No** 6 of 9

Validity 15/10/2021 to 14/10/2023 **Last Amended on** -

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68	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Acetylene (C2H2)	IS 10593
69	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Acetylene (C2H2)	ASTM 3612-02 Method - C
70	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Acetylene (C2H2)	IEC 60599
71	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Carbon Dioxide (CO2)	ASTM 3612-02 Method - C
72	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Carbon Dioxide (CO2)	IEC 60567
73	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Carbon Dioxide (CO2)	IEC 60599
74	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Carbon Dioxide (CO2)	IS 10593
75	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Carbon Monoxide (CO)	ASTM 3612-02 Method - C
76	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Carbon Monoxide (CO)	IEC 60567
77	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Carbon Monoxide (CO)	IEC 60599
78	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Carbon Monoxide (CO)	IS 10593
79	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Ethane (C2H6)	ASTM 3612-02 Method - C
80	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Ethane (C2H6)	IEC 60567
81	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Ethane (C2H6)	IEC 60599

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-8051 **Page No** 7 of 9

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82	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Ethane (C2H6)	IS 10593
83	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Ethylene (C2H4)	ASTM 3612-02 Method - C
84	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Ethylene (C2H4)	IEC 60567
85	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Ethylene (C2H4)	IEC 60599
86	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Ethylene (C2H4)	IS 10593
87	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Hydrogen (H2)	ASTM 3612-02 Method - C
88	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Hydrogen (H2)	IEC 60567
89	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Hydrogen (H2)	IEC 60599
90	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Hydrogen (H2)	IS 10593
91	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Methane (CH4)	ASTM 3612-02 Method - C
92	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Methane (CH4)	IEC 60567
93	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Methane (CH4)	IEC 60599
94	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Methane (CH4)	IS 10593
95	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Nitrogen (N2)	ASTM 3612-02 Method - C

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-8051 **Page No** 8 of 9

Validity 15/10/2021 to 14/10/2023 **Last Amended on** -

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96	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Nitrogen (N2)	IEC 60567
97	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Nitrogen (N2)	IEC 60599
98	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Nitrogen (N2)	IS 10593
99	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Oxygen (O2)	ASTM 3612-02 Method - C
100	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Dissolved Gas Analysis (DGA) - Oxygen (O2)	IEC 60567
101	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Oxygen (O2)	IEC 60599
102	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Dissolved Gas Analysis (DGA) - Oxygen (O2)	IS 10593
103	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Electric Strength / Break Down Voltage (BDV)	IEC 60156
104	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Electric Strength / Break Down Voltage (BDV)	IS 6792
105	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Flash Point	IS 1448 P 21
106	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Flash Point	ISO 2719
107	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Interfacial Tension (IFT)	ASTM D 971
108	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Interfacial Tension (IFT)	IS 6104
109	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Kinematic Viscosity	IS 1448 P 25

SCOPE OF ACCREDITATION

Laboratory Name :	HV TEST LABORATORY, SIEMENS LTD., TRANSFORMER WORKS, THANE BELAPUR ROAD, AIROLI POST OFFICE, AIROLI, NAVI MUMBAI, MAHARASHTRA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-8051	**Page No**	9 of 9
Validity	15/10/2021 to 14/10/2023	**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
110	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Kinematic Viscosity	ISO 3104
111	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Pour Point	IS 1448 P 10/ Sec 2
112	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Pour Point	ISO 3016
113	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Specific Resistance (Resistivity)	IEC 60247
114	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer oils	Specific Resistance (Resistivity)	IS 6103
115	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Water Content	IEC 60814
116	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Transformer Oils	Water Content	IS 13567