

Laboratory Indo Tech Transformers Limited (A Unit of Prolec GE), S. No. 153-210, Illuppapattu Village, 64 KM, Chennai Bangalore Highway, Rajakulam Post, Kanchipuram, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5622 (In lieu of T-3374)

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Validity 24.04.2017 to 23.04.2019

Last Amended on 08.05.2017

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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ELECTRICAL TESTING

I.	TRANSFORMERS & REACTORS			
1.	Power Transformer & Reactors : 0.5 Mva/200 Mva/3.3 kv/ 245 kV	Measurement of Winding Resistance	IS 2026-1: 2011 (Clause 10.2), IEC-60076-1 :2011 (Clause 11.2), IEEE/ANSI-C57-12.90-2010, (Clause 5.3)	0.1 mΩ to 50 Ω 1 A to 50 A At 50°C
		Measurement of Voltage Ratio	IS 2026-1: 2011 (Clause 10.3), IEC-60076-1 :2011 (Clause 11.3), IEEE/ANSI-C57-12.90-2010, (Clause 7.0)	1 to 199
		Check of Phase displacement : (Vector group)	IS 2026-1: 2011 (Clause 10.3), IEC-60076-1 :2011 (Clause 11.3), IEEE/ANSI-C57-12.90-2010 (Clause 6.3)	100 V to 433 V
		Measurement of Impedance Voltage / Short circuit Impedance and Load Loss % Impedance	IS 2026-1: 2011 (Clause 10.4), IEC-60076-1 :2011 (Clause 11.4), IEEE/ANSI-C57-12.90-2010 (Clause 9.0)	500 Volt to 45 kV 10 A to 2000 A 1 kW to 700 kW Ambient =50 °C 4% to 15%
		Measurement of No Load Loss and Current	IS 2026-1: 2011 (Cl.no 10.5), IEC-60076-1 :2011 (Cl.no 11.5) IEEE/ANSI-C57-12.90-2010 (Cl.no 8.0)	1 kW to150 kW 400 V to 45 kV 0.1 to 200A

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		Measurement of Insulation Resistance & Polarisation Index	IS 2026-1: 2011 (Clause 10.1.3) IEC-60076-1 :2011 (Clause 11.1.4), IEEE/ANSI-C57-12.90-2010 (Clause 10.11)	0.2 MΩ to 10 GΩ Ambient =50 °C
		Separate Source Voltage withstand Test	IS 2026-3: 2009 (Cl.no11.0) IEC-60076-3 :2013 (Cl.no10.0) IEEE/ANSI-C57-12.90-2010 (Cl.no. 10.6)	1 kV to 300 kV Time: Upto 60s
		Induced Over Voltage withstand Test	IS 2026-3: 2009 (Cl.no.12.0) IEC-60076-3 :2013 (Cl.no 11.0) IEEE/ANSI-C57-12.90-2010 (Cl.no 10.7 to 10.9)	6.6 kV to 460 kV Time: Upto 60s
		Magnetic Balance test at single Phase 230V	CBIP Manual Pub.No.295/2013, Section BB 3.17 & B6	50 V to 433 V 0.01 A to 20 A
		Measurement of exciting Current at low voltage	CBIP Manual Pub.No.295/2013, Section BB 3.17 & B6	50 V to 433 V 0.01 A to 20 A
		Lightning Impulse Test	IS 2026-3: 2009 (Cl.no 13.0,14) IEC-60076-3 :2013 (Clause 11.0 & 13) IEEE/ANSI-C57-12.90-2010 (Clause 9.0,10.3)	Full wave : 75 kVp to 2000 kVp Tail chop: 75 kVp to 1800 kVp
		Switching Impulse Test	IS 2026-3: 2009 (Clause 15.0) IEC-60076-3 :2013 (Clause 14.0) IEEE/ANSI-C57-12.90-2010 (Clause 10.2)	375 kVp to 1440 kVp

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		Temperature Rise Test Measured Temp:	IS 2026-2: 2010 (Cl.no. 4.0) IEC-60076-2 :2011 (Cl.no. 7.0), IEEE/ANSI-C57-12.90-2010	500 V to 45 kV 0.1 A to 2000A 1 kW to 700 kW 20°C to 110°C
		Measurement of Zero Sequence Impedance of 3 phase transformer	IS 2026 (Part 1): 2011(Cl.10.7) IEC 60076-1: 2011 (Cl.11.6) IEEE/ANSI C57-12.90:2010 (Cl.9.5)	0.01 Ω to 100 Ω
		Measurement of Harmonics on No load Current	IS 2026-1: 2011 (Cl.no.10.6)	0.3 % to 30 %
		Measurement of Capacitance & Dissipation Factor (Tan Delta)	IS 2026-1: 2011 (Clause 10.1.3-b) IEC-60076-1 :2011 (Clause 11.1.4) IEEE/ANSI-C57-12.90-2010 (Clause 10.10)	Cap: 1 pF to 100 μF Tan delta : 0.01% to 10% Ambient =50°C
		Measurement of the power taken by the fans and liquid Pump motors	IS-2026-1: 2011 (Cl.no. 10.1.3-h), IEC-60076-1 :2011 (Cl.no. 11.1.3-d), IEEE/ANSI-C57-12.90-2010	0.1 kW to 10 kW
		Magnetic Circuit (Isolation) Test	CBIP Manual Pub.No.317/2013 (Section BB 3.15)	1kV to 5 kV

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