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**		
Discipline	**Electrical Testing**	**Issue Date**	**24.04.2015**
Certificate Number	**T-3374**	**Valid Until**	**23.04.2017**
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	**INDUCTORS & TRANSFORMERS**			
1.	**Power Transformer 500 kVA to 200 MVA / 3300 V to 245 kV Class**	Winding Resistance	IS 2026 (Part 1): 2011 (Cl.10.2) IEC 60076-1: 2011 (Cl.11.2) IEEE/ANSI C57-12.90: 2010 (Cl. 5.3)	0.1 mΩ to 50 Ω 1 A to 50 A at 50 °C
		Voltage Ratio	IS 2026 (Part 1): 2011 (Cl.10.3) IEC 60076-1: 2011 (Cl.11.3) IEEE/ANSI C57-12.90: 2010 (Cl.7.0)	1 to 199
		Check of Phase Displacement	IS 2026 (Part 1): 2011 (Cl.10.3) IEC 60076-1: 2011 (Cl.11.3) IEEE/ANSI C57-12.90: 2010 (Cl.6.30)	100 V to 433 V
		Short Circuit Impedance Voltage & Load Loss	IS 2026 (Part 1): 2011 (Cl.10.4) IEC 60076-1: 2011 (Cl.11.4) IEEE/ANSI-C57-12.90: 2010 (Cl.9.0)	500 V to 45 kV 10 A to 2000 A 1 kW to 700 kW at 50 °C
		No Load Loss and Current	IS 2026 (Part 1): 2011 (Cl.10.1.3) IEC 60076-1: 2011 (Cl.11.5) IEEE/ANSI-C57-12.90: 2010 (Cl.8.0)	1 kW to 150 kW 400 V to 45 kV 0.1 A to 200 A
		Insulation Resistance & Polarization Index	IS 2026-1: 2011 (Cl.10.1.3) IEC 60076-1: 2011 (Cl.11.1.4) IEEE/ANSI-C57-12.90: 2010 (Cl.10.11)	0.2 MΩ to 10 GΩ at 50 °C

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	Power Transformer 500 kVA to 200 MVA / 3300 V to245 kV Class	Separate Source Voltage Withstand Test	IS 2026-3: 2009 (Cl.11.0) IEC 60076-3: 2013 (Cl.10.0) IEEE/ANSI-C57-12.90: 2010 (Cl.10.6)	1 kV to 300 kV Time : upto 60 s
		Induced Over Voltage Withstand Test	IS 2026-3: 2009 (Cl.12.0) IEC 60076-3: 2013 (Cl.11.0) IEEE/ANSI-C57-12.90: 2010 (Cl.10.7 to Cl.10.9)	6.6 kV to 460 kV Time : upto 30 s
		Magnetic Balance Test At Single Phase 230 V	CBIP Manual Pub.No.295/2013 (Section BB 3.17 & B6)	50 V to 433V, 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 433V, 0.01 A to 20 A
		Lightning Impulse Test	IS 2026-3: 2009 (Cl.13,14) IEC 60076-3: 2013 (Cl.11, 13) IEEE/ANSI-C57-12.90: 2010 (Cl. 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 (Cl.15.0) IEC 60076-3: 2013 (Cl.14.0) IEEE/ANSI-C57-12.90: 2010 (Cl.10.2)	375 kVp to 1440 kVp
		Temperature Rise Test	IS 2026-2: 2010 (Cl.4.0) IEC 60076-2: 2011 (Cl.7.0) IEEE/ANSI-C57-12.90: 2010 (Cl.11.0)	500 V to 45 kV, (0.1 A to 2000 A), 1 kW to700 kW at 50 °C

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Power Transformer 500 kVa to 200 MVa / 3300 V to 245 kv Class	Zero Sequence Impedance of 3 Phase Transformer	IS 2026-1: 2011 (Cl.10.7) IEC 60076-1: 2011 (Cl.11.6) IEEE/ANSI-C57-12.90: 2010 (Cl.9.5)	0.01 Ω to 400 Ω
		Harmonics of on No Load Current	IS 2026-1: 2011 (Cl.10.6)	0.1 % to 30 %
		Capacitance Dissipation Factor (Tan Delta)	IS 2026-1: 2011 (Cl.10.1.3-b) IEC 60076-1: 2011 (Cl.11.1.4) IEEE/ANSI-C57-12.90: 2010 (Cl.10.10)	1 pF to 100 µF 0.0001 % to 100 % at 50 °C
		Power Taken by The Fans and Liquid Pump Motors	IS 2026-1: 2011 (Cl.10.1.3-h) IEC 60076-1 : 2011 (Cl.11.1.3-d) IEEE/ANSI-C57-12.90: 2010	0.1 kW to 10 kW
		Check of Core and Frame Insulation	CBIP Manual 2013 (Section BB 3.15)	1 kV to 5 kV

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