National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	POWER TRANSFORMER TESTING LABORATORIES, TRANSFORMERS & RECTIFIERS (INDIA) LTD, SURVEY NO. 427P/3-4 & 431P/1-2, SARKHEJ BAVLA HIGHWAY, POST:MORAIYA, TAL:SANAND, AHMEDABAD, GUJARAT, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-6833	**Page No**	1 of 7
Validity	11/02/2022 to 10/02/2024	**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
LOCATION 1-SURVEY NO. 427P/3-4 & 431P/1-2, SARKHEJ BAVLA HIGHWAY, POST:MORAIYA, TAL:SANAND, AHMEDABAD, GUJARAT, INDIA Permanent Facility				
1	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Determination of Transient Voltage Transfer Characteristics	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)/CBIP publication 317 -2013 AMD
2	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Induced voltage withstand test	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
3	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Magnetic Balance & Magnetizing current Measurement at low voltage	CBIP publication 317 -2013 AMD
4	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Magnetic Balance & Magnetizing current Measurement at low voltage	CBIP publication 317 -2013 AMD
5	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Measurement of Load loss and Impedance Voltage	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
6	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Measurement of insulation resistance and determination of polarization index	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1:2011/ CBIP Publication 317-2013 AMD
7	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (b) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Linearity Measurement	IS 2026 : Part 6 : 2017/ IEC 60076-6
8	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (b) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Reactance Measurement	IS 2026-6:2017/ IEC 60076-6
9	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (b) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Reactor Loss Measurements	IS 2026-6:2017/IEC 60076-6
10	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (b) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Strain Measurement	IS 2026-6:2017/IEC 60076-6
11	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (b) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Vibration Measurement	IS 2026-6:2017/ IEC 60076-6:

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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
12	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Measurement of Load loss and Impedance Voltage	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
13	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Measurement of no load loss and current	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
14	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Measurement of Power taken by Fans and Liquid pump Motors	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
15	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Measurement of Ratio & Polarity Check	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
16	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Over Excitation Test	PGCIL Specification C/FNGG/MODEL-SPEC/TRF REV.8
17	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Test on On-load Tap changer	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
18	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class	Vector group verification	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1:2011/ CBIP Publication 317-2013 AMD
19	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Check of core and frame insulation for liquid immersed transformers	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1:2011/ CBIP Publication 317-2013 AMD
20	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Determination of Sound Level	IS 2026 : Part 10 : Sec 1 : 2018/IEC 60076-10-1:2016I/EC 60076-10-1:2016+AMD1:2020/ NEMA TR-1
21	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Lightning Impulse Test	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
22	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Lightning Impulse Test	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)

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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
23	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Lightning Impulse Test	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
24	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Lightning Impulse Test	IIEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
25	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Measurement of capacitance and tan delta test	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1:2011/ CBIP Publication 317-2013 AMD
26	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Measurement of capacitance and tan delta test	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1:2011/ CBIP Publication 317-2013 AMD
27	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Measurement of Frequency response (FRA)	IS 2026 : Part 18: 2018/IEC 60076-18: 2012/ IEC 60076-18
28	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Measurement of Harmonics of No load current	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
29	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Measurement of winding resistance	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
30	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Measurement of Zero sequence Impedance (three phase transformers only)	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
31	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Partial Discharge Measurement	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)

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32	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Separate source voltage withstand test /Applied voltage test	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
33	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Switching Impulse Test	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
34	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Switching Impulse Test	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
35	ELECTRICAL- INDUCTORS & TRANSFORMERS	(a) Single phase transformer from 1MVA ,11 kV to 500 MVA, 765 kV class (b)Three phase Transformer from 1MVA ,11 kV to 500 MVA, 400 kV class , (c) Single Phase reactor from 500 kVAr, 11kV to 150 MVAr, 765kV (d) Three phase reactor from 500 kVAr ,11 kV to 150 MVAr, 400 kV class	Temperature rise Test	IS 2026:PART 2 :2010 (1 Revision) reaffirmation year 2020/IEC 60076-2

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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
LOCATION 2 - SURVEY NO. 344/350, SARKHEJ BAVLA HIGHWAY NO. 8, CHANGODAR, TAL SANAND, AHMEDABAD, GUJARAT, INDIA Permanent Facility				
1	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Check of core & frame insulation for liquid immersed transformers	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1:2011/ CBIP Publication 317-2013 AMD
2	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Tan delta Measurement	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1:2011/ CBIP Publication 317-2013 AMD
3	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Capacitance Measurement	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1:2011/ CBIP Publication 317-2013 AMD
4	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	CT Ratio & Polarity Check	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
5	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Frequency response(FRA)	IS 2026 : Part 12 : 2018/IEC 60076-12:2008/IEC 60076-12
6	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Harmonics of No load Current	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
7	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Impedance Voltage Measurement	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
8	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Induced Voltage Withstand	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
9	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Insulation Resistance & Polarization Index	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)/CBIP publication 317 -2013 AMD
10	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Lightning Impulse	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
11	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Lightning Impulse	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)

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13	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Load loss Measurement	IS 2026-1:2011(2ND Revision) Reaffirmation year 2016/IEC 60076-1
14	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Magnetic Balance & Magnetizing current Measurement at low voltage	CBIP Publication 317-2013 AMD
15	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	No load loss & current	IS 2026-1:2011(2ND Revision) Reaffirmation year 2016/IEC 60076-1
16	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	On-load Tap Changer	IIS 2026-1:2011(2ND Revision) Reaffirmation year 2016/IEC 60076-1:
17	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Partial Discharge	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
18	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Power taken by Fans & Liquid pump motors	IS 2026-1:2011(2ND Revision) Reaffirmation year 2016/IEC 60076-1:
19	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Ratio & Polarity Check	IS 2026-1:2011(2ND Revision) Reaffirmation year 2016/IEC 60076-1
20	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Separate Source Voltage Withstand/ Applied voltage	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)
21	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Sound Level	IS 2026 : Part 10 : Sec 1 : 2018/IEC 60076-10-1:2016I/EC 60076-10-1:2016+AMD1:2020/ NEMA TR-1
22	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Switching Impulse	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision): 2018

SCOPE OF ACCREDITATION

Laboratory Name : POWER TRANSFORMER TESTING LABORATORIES, TRANSFORMERS & RECTIFIERS (INDIA) LTD, SURVEY NO. 427P/3-4 & 431P/1-2, SARKHEJ BAVLA HIGHWAY, POST:MORAIYA, TAL:SANAND, AHMEDABAD, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6833 **Page No** 7 of 7

Validity 11/02/2022 to 10/02/2024 **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
23	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Switching Impulse	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision): 2018 : 2018
24	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Temperature rise	IS 2026:PART 2 :2010 (1 Revision) reaffirmation year 2020/IEC 60076-2
25	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Transient Voltage Transfer Characteristics	IEC 60076-3:2013+AMD1:2018/IS 2026 : Part 3 : 2018/IEC 60076-3:2013(4 Revision)/CBIP publication 317 -2013 AMD
26	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Vector Group Verification	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1:2011/ CBIP Publication 317-2013 AMD
27	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Winding Resistance	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
28	ELECTRICAL- INDUCTORS & TRANSFORMERS	(A)Three Phase transformer 500KVA 3.3kV to 160MVA, 220 kV class. (B) Single Phase Transformer 500KVA, 3.3kV to 66.67MVA, 220 kV Class	Zero sequence Impedence (Three phase transformers only)	IS 2026 : PART 1:2011(2 Revision) reaffirmation year 2016/IEC 60076-1
29	ELECTRICAL- INDUCTORS & TRANSFORMERS	Three phase reactor from 1MVAr ,6.6 kV to 25 MVAr, 245 kV class	Reactor loss	IS 2026-6:2017/ IEC 60076-6
30	ELECTRICAL- INDUCTORS & TRANSFORMERS	Three phase reactor from 1 MVAr ,6.6 kV to 25 MVAr, 245 kV class	Reactance Measurement	IS 2026-6:2017/ IEC 60076-6
31	ELECTRICAL- INDUCTORS & TRANSFORMERS	Three phase reactor from 1 MVAr ,6.6 kV to 25 MVAr, 245 kV class	Linearity Measurement	IS 2026-6:2017/ IEC 60076-6
32	ELECTRICAL- INDUCTORS & TRANSFORMERS	Three phase reactor from 1 MVAr ,6.6 kV to 25 MVAr, 245 kV class	Strain Measurement	IS 2026-6:2017/ IEC 60076-6
33	ELECTRICAL- INDUCTORS & TRANSFORMERS	Three phase reactor from 1 MVAr ,6.6 kV to 25 MVAr, 245 kV class	Vibration Measurement	IS 2026-6:2017/ IEC 60076-6
34	ELECTRICAL- INSULATING MATERIALS & INSULATORS	EIECTRICAL MATERIALS-LIQUID DIELECTRIC MATERIALS	BDV	IS 1866:2017/IEC 60422:2013/IS6792:2017/IEC 60156RLV:2018/IS335:2018/IEC 62770