National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : IMP POWERS LIMITED, TESTING LABORATORY, SURVEY: 263/3/2/2, SILVASSA, DADRA AND NAGAR HAVELI, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11027 **Page No** 1 of 4

Validity 30/09/2022 to 29/09/2024 **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
Permanent Facility				
1	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Applied voltage Separate source A.C.withstand voltage Test	IS 2026 (Part-3), Clause-11.0
2	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Induced A.C. voltage test (IVW)	IEC 60076 (Part 3) Clause 11.2
3	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Induced A.C. voltage test (IVW)	IS 2026 (Part 3) Clause 12.0
4	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Induced Voltage test with partial discharge measurement (IVPD)	IEC 60076 (Part 3) Clause 11.3
5	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Induced voltage with partial discharge measurement (ACSD/ACLD)	IS 2026 (Part 3) Clause 12.2/12.3
6	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Insulation of Auxiliary Wiring (AuxW)	IEC 60076 PART 3 CLAUSE 9
7	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Insulation of Auxiliary Wiring (AuxW)	IS 2026 PART 3 CLAUSE 10
8	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Lightning Impulse Voltage withstand test(LI/LIC)	IEC 60076 (Part 3) Clause 13.0
9	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Lightning Impulse Voltage withstand test(LI/LIC)	IS 2026 (Part 3) Clause 13.0/14.0
10	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Lightning Impulse Voltage withstand test(LI/LIC) T1(front time)	IEC 60076 (Part 3) Clause 13
11	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Lightning Impulse Voltage withstand test(LI/LIC) T1(front time)	IS 2026 (Part 3) Clause 13/14
12	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Lightning Impulse Voltage withstand test(LI/LIC) T2 (tail time)	IS 2026 (Part 3) Clause 13/14
13	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Lightning Impulse Voltage withstand test(LI/LIC) T2 (tail time)	IS 2026 (Part 3) Clause 13/14 :
14	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Lightning Impulse Voltage withstand test(LI/LIC) Tc (chopping time)	IEC 60076 (Part 3) Clause 13.0
15	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Lightning Impulse Voltage withstand test(LI/LIC) Tc (chopping time)	IS 2026 (Part 3) Clause 13/14

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Certificate Number TC-11027 **Page No** 2 of 4

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16	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Magnetic Balance at 230 V Single Phase	CBIP Pub-317 cl.3.5.f
17	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of Acoustic Sound level	IEC 60076 (Part 10) , clause 9.0,10.0 & 11.0
18	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of Acoustic Sound level	IS 2026 (Part 1) Clause 9.0, 10.0 & 11.0
19	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement Of Capacitance & Tan-Dalta (Tan Delta)	IS 2026 (Part 1) Clause 10.1.3, 2011 ; IEC 60076 (Part 1) Clause 11.1.4(d), 2011 ; CBIP 317 Clause 3.3(i)
20	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement Of Capacitance & Tan-Delta (Capacitance)	IS 2026 (Part 1) Clause 10.1.3, 2011 ; IEC 60076 (Part 1) Clause 11.1.4(d) 2011 ; CBIP 317 Clause3.3(i):
21	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement Of Capacitance & Tan-Delta (HV SOURCE)	IS 2026 (Part 1) Clause 10.1.3, 2011 ; IEC 60076 (Part 1) Clause 11.1.4(d) 2011 ; CBIP 317 Clause 3.3(i)
22	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of Excitation current at 415 V three phase	CBIP Pub-317 Clause 3.4 (f):
23	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement Of Insulation Resistance	CBIP Manual Pub. No. 317, 3.5 (i)
24	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of Insulation Resistance	IS 2026 (Part 1) Clause 10.1.3, 2011 ; IEC 60076 (Part 1) Clause 11.1.2.2:
25	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of Load Loss and percentage impedance	IS 2026 (Part-1) Clause 10.4, 2011 ; IEC 60076 (Part 1) Clause 11.4:
26	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of No load loss and current	IS 2026 (Part-1) Clause 10.5, 2011 ; IEC 60076 (Part 1) Clause 11.5:
27	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of Power taken by Cooling Fans & oil pumps	IS 2026 (Part 1) Clause 10.1.3(h), 2011 ; IEC 60076 (Part 1) Clause 11.1.3 (d):
28	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of the harmonics of the no-load current	IS 2026 (Part 1) Clause 10.6
29	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of voltage ratio and check vector group	IS 2026 (Part 1) Clause 10.3, 2011 ; IEC 60076 (Part-1) Clause 11.3

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Certificate Number TC-11027 **Page No** 3 of 4

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30	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of Winding resistance	IS 2026 (Part 1) Clause 10.2, 2011 ; IEC 60076 (Part-1) Clause 11.2:,
31	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Measurement of Zero Phase sequence Impedance	IS 2026 (Part 1) Clause 10.7, 2011 ; IEC 60076 (Part 1) Clause 11.6:
32	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Oil Leakage Test	CBIP Manual Pub. No. 317 Clause 17.3.1(b):
33	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Oil leakage Test	IEC 60076 (Part 1) Clause 11.8:
34	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Sweep Frequency Response Analysis (SFRA)	IEC 60076 (PART-18),CBIP Manual Pub No 317 Clause-3.22: 2013
35	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Switching Impulse Voltage withstand test (SI)	IEC 60076 (Part 3) Clause 14:
36	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Switching Impulse Voltage withstand test (SI)	IS 2026 (Part 3) Clause 15.0:
37	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Switching Impulse Voltage withstand test (SI) Tp (Peak Time)	IEC 60076 (Part 3) Clause 14:
38	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Switching Impulse Voltage withstand test (SI) Tp (Peak Time)	IS 2026 (Part 3) Clause 15.0 :
39	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Switching Impulse Voltage withstand test (SI) Tz (time to zero)	IEC 60076 (Part 3) Clause 14:
40	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Switching Impulse Voltage withstand test (SI) Tz (time to zero)	IS 2026 (Part 3) Clause 15.0:
41	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Temperature rise Test	IEC 60076 (Part 2) Clause 7.0:
42	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Temperature Rise Test	IS 2026 (Part 2) Caluse 5.0:
43	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Test on On Load Tap Changer	IS 2026 (Part 1) Clause 10.8, 2011 ; IEC 60076 (Part 1) Clause 11.7:
44	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Transfer of Surge	IEC 60076 (Part 3) ANNEXURE B (B.2):
45	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Transfer of Surge	IS 2026 (Part 3) Clause 13.3.3 :

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Validity	30/09/2022 to 29/09/2024	**Last Amended on**	-

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46	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer, upto 315MVA, 400kV Class	Vacuum Test (on empty tank)	CBIP Manual Pub. No. 317 Clause 17.3.2(a):