National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : SKIPPERSEIL LABORATORY, PLOT NO. SP-9A, RIICO INDUSTRIAL AREA, KAHARANI, BHIWADI, ALWAR, RAJASTHAN, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6653 **Page No** 1 of 4

Validity 18/12/2021 to 17/12/2023 **Last Amended on** 29/01/2022

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	Distribution & Power Transformer(From 11kV,100kVA up to 122kV,66MVA)	Measurement of voltage ratio	IS 2026 (Part 1), CL 10.3, Reaffirmed:2016
2	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Applied voltage test	IEC 60076- 3, CL 7.3,Amendment:2018: 2013
3	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Applied voltage test	IS 2026 (Part 3), CL.10(Fourth revision)
4	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Chopped wave lightning impulse test for the line terminals	IEC 60076- 3, CL 13.3,Amendment:2018
5	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Chopped wave lightning impulse test for the line terminals	IS 2026(Part-3),CL 13.3, Fourth Revision
6	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Determination of capacitances windings-to-earth and between windings & Measurement of dissipation factor (tan d) of the insulation system capacitances	IS 2026 (Part 1),CL 10.1.3, Reaffirmed:2016
7	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Determination of capacitances windings-to-earth and between windings & Measurement of dissipation factor (tan d) of the insulation system capacitances & Measurement of dissipation factor (tan d) of the insulation system capacitances	IEC 60076-1,CL 11.1.4
8	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Determination of Sound Level Test	IEC 60076-10
9	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Determination of Sound Level Test	IS 2026 (Part 10), Reaffirmed:2019
10	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Determination of Sound Level Test	NEMA TR-1
11	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Full wave lightning impulse test for the line terminals & neutral terminal	IEC 60076-3, CL 13.2 & 13.4, Amendment:2018
12	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Full wave lightning impulse test for the line terminals & neutral terminal	IS 2026(Part 3),CL13.2 & 13.4, Fourth Revision
13	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Induce Over voltage withstand Test (IVW & IVPD)	IEC 60076-3,CL 11, Amendment:2018

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14	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Induce Over voltage withstand Test (IVW & IVPD)	IS 2026 (Part 3),CL. No. 11, Fourth Revision
15	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Line terminal AC withstand voltage test (LTAC)	IEC 60076-3,CL 12, Amendment:2018
16	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of D.C. insulation resistance each winding to earth, between windings & between core & frame	IEC 60076-1,CL 11.1.4
17	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of D.C. insulation resistance each winding to earth, between windings & between core & frame	IS 2026 (Part 1), CL 10.1.3, Reaffirmed:2016
18	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of frequency response (Frequency Response Analysis or FRA)	IEC 60076-18
19	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of frequency response (Frequency Response Analysis or FRA)	IS 2026(Part 18)
20	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of Harmonic content of No-Load Current	IS 2026 (Part 1), CL 10.6, Reaffirmed:2016
21	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of Load Losses	IEC 60076-1,CL 11.4
22	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of Load Losses	IS 2026 (Part 1),CL 10.4., Reaffirmed:2016
23	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of Magnetic Balance	CBIP PUB. NO. 317
24	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of No load current & No Load Losses at 90 to 110% of rated voltage	IEC 60076-1, CL 11.5
25	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of No load current & No Load Losses at 90 to 110% of rated voltage	IS 2026 (Part 1),CL 10.5, Reaffirmed:2016
26	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of phase displacement / Vector group	IEC 60076-1, CL 11.3
27	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of phase displacement / Vector group	IS 2026 (Part 1),CL 10.3, Reaffirmed:2016
28	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of short-circuit impedance	IEC 60076-1, CL 11.4
29	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of short-circuit impedance	IS 2026 (Part 1), CL 10.4, Reaffirmed:2016

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30	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of the power taken by the fan and liquid pump motors	IEC 60076-1, CL 11.1.3
31	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of the power taken by the fan and liquid pump motors	IS 2026 (Part 1), CL 10.1.3, Reaffirmed:2016
32	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of voltage ratio	IEC 60076-1, CL 11.3
33	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of winding resistance	IEC 60076-1, CL 11.2
34	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of winding resistance	IS 2026 (Part 1), CL 10.2, Reaffirmed:2016
35	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of Zero sequence Impedance	IEC 60076-1, CL 11.6
36	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Measurement of Zero sequence Impedance	IS 2026 (Part 1), CL 10.7, Reaffirmed:2016
37	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Temperature rise test	IEC 60076- 2
38	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Temperature rise test	IS 2026 (Part 2), Reaffirmed:2020
39	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Tests on on-load tap-changers	IEC 60076-1, CL 11.7
40	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Tests on on-load tap-changers	IS 2026 (Part 1), CL 10.8,Reaffirmed:2016
41	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Transformer oil break down voltage test	IEC 60156
42	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Transformer oil break down voltage test	IS 1866
43	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Transformer oil break down voltage test	IS 335
44	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution & Power Transformer(From 11kV,100kVA up to 132kV,66MVA)	Transformer oil break down voltage test	IS 6792
45	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution transformer	Determination of Sound Level	IS1180(Part-1), CL 21.4,Amendment:2019
46	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution Transformer	Full wave lightning impulse test	IS1180(Part-1), CL 21.3,Amendment:2019
47	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution Transformer	Induced voltage Withstand Test	IS1180(Part-1), CL 21.2,Amendment:2019

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48	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution transformer	Measurement of D.C. insulation resistance each winding to earth, between windings.	IS1180(Part-1), CL 21.2,Amendment:2019
49	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution Transformer	Measurement of load loss at 50 percent and 100 percent load	IS1180(Part-1), CL 21.2,Amendment:2019
50	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution transformer	Measurement of No load current & No Load Losses at 90 to 112.5% of rated voltage	IS1180(Part-1), CL 21.2,Amendment:2019
51	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution transformer	Measurement of phase displacement / Vector group	IS1180(Part-1), CL 21.2,Amendment:2019
52	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution transformer	Measurement of short-circuit impedance	IS1180(Part-1), CL 21.2,Amendment:2019
53	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution transformer	Measurement of voltage ratio	IS1180(Part-1), CL 21.2,Amendment:2019
54	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution transformer	Measurement of winding resistance	IS1180(Part-1), CL 21.2,Amendment:2019
55	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution transformer	Separate source voltage withstand test	IS1180(Part-1), CL 21.2,Amendment:2019
56	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution transformer	Temperature rise test	IS1180(Part-1), CL 21.3,Amendment:2019
57	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer	Switching impulse test for the line terminal	IEC 60076-3, CL 14, Amendment:2018
58	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformer	Switching impulse test for the line terminal	IS 2026(Part-3), CL 14 , Fourth Revision