National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION, ERDA NORTH LABORATORY GURUGRAM, CBIP CENTRE OF EXCELLENCE GROUND FLOOR, PLOT NO. 21, SECTOR 32, GURGAON, HARYANA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5728	**Page No**	1 of 34
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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
Permanent Facility				
1	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	AC High Voltage Test	IS 13779 Cl. No. 12.7.6.3, IS 14697 Cl. No.12.7.6.3 CBIP Publication No.: 304, Cl. No. 5.4.6.3 CBIP Publication No.: 325, Cl. No. 5.4.6.3 IEC 62052-11, Cl. No. 7.3 IEC 62052-31, Cl. No. 6.10 IEC 62053-21, Cl. No. 7.4 IEC 62053-22, Cl. No. 7.4 IEC 62053-23, Cl. No. 7.4 IEC 62053-24, Cl. No. 7.5 Cl. No. 5.4.6.3 of IS 15884, Cl. No. 6.10.6 of IS 16444 (Part 1), Cl. No. 6.10.6 of IS 16444 (Part 2)
2	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Insulation Resistance/ Insulation Test	IS 13779 Cl. No. 12.7.6.4, IS 14697 Cl. No. 12.7.6.4 CBIP Publication No.: 304, Cl. No. 5.4.6.4 CBIP Publication No.: 325, Cl. No. 5.4.6.4 of IS 15884, Cl. No. 6.10.6 of IS 16444 (Part 1), Cl. No. 6.10.6 of IS 16444 (Part 2)
3	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Influence Quantity a) Frequency Variation b) Voltage Variation c) DC Magnetic induction of external origin d) AC Magnetic induction of external origin e) Magnetic induction of Permanent Magnet	Cl. No. 12.11 of IS 13779, Cl. No. 12.10 of IS 14697, Cl. No. 5.6.2 of CBIP Publication No.: 304, Cl. No. 5.6.2 of CBIP Publication No.: 325, IEC 62052-11 Cl. No. 8.2 of IEC 62053-21, Cl. No. 8.2 of IEC 62053-22, Cl. No. 8.2 of IEC 62053-23, Cl. No. 8.3 of IEC 62053-24, Cl. No. 4.6.2 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2), Cl. No. 8 of IEC 62055-31

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4	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of limits of errors/ Test of Accuracy requirement	IS 13779 Cl. No. 11.1, IS 14697 Cl. No. 11.1 CBIP Publication No.: 304, Cl. No. 5.6.8 CBIP Publication No.: 325, Cl. No. 4.6.2 IEC 62052-11 IEC 62053-21, Cl. No. 8.1 IEC 62053-22, Cl. No. 8.1 IEC 62053-23, Cl. No. 8.1 IEC 62053-24, Cl. No. 8.2 IEC 62055-31, Cl. No. 8.0 IS 13875 (Part 1 & 3), Cl. No. 4.6.1 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2)
5	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Meter Constant	IS 13779 Cl. No. 12.15, IS 14697 Cl. No. 12.14 CBIP Publication No.: 304, Cl. No. 5.6.6 CBIP Publication No.: 325, Cl. No. 5.6.6 IEC 62052-11 IEC 62053-21, Cl. No. 8.4 IEC 62053-22, Cl. No. 8.4 IEC 62053-23, Cl. No. 8.4 IEC 62053-24, Cl. No. 8.5 Cl. No. 5.6.5 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 8 of IEC 62055-31, Cl. No. 6.12 of IS 16444 (Part 2)
6	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of No Load Condition	IS 13779 Cl. No. 12.13, IS 14697 Cl. No. 12.12 CBIP Publication No.: 304, Cl. No. 5.6.4 CBIP Publication No.: 325, Cl. No. 5.6.4 IEC 62052-11 IEC 62053-21, Cl. No. 8.3 IEC 62053-22, Cl. No. 8.3 IEC 62053-23, Cl. No. 8.3 IEC 62053-24, Cl. No. 8.4 Cl. No. 5.6.3 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2), Cl. No. 8 of IEC 62055-31

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7	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Power Consumption Test	IS 13779 Cl. No. 12.7.1, IS 14697 Cl. No. 12.7.1 CBIP Publication No.: 304, Cl. No. 5.4.1 CBIP Publication No.: 325, Cl. No. 5.4.1 IEC 62052-11 IEC 62053-21, Cl. No. 7.1 IEC 62053-22, Cl. No. 7.1 IEC 62053-23, Cl. No. 7.1 IEC 62053-24, Cl. No. 7.2 Cl. No. 5.4.1 of IS 15884, Cl. No. 6.10.1 of IS 16444 (Part 1), Cl. No. 6.10.1 of IS 16444 (Part 2), Cl. No. 7.3 of IEC 62055-31
8	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Repeatability of Errors	IS 13779 Cl. No. 12.17, IS 14697 Cl. No. 12.16 CBIP Publication No.: 304, Cl. No. 5.6.9 CBIP Publication No.: 325, Cl. No. 5.6.7 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2)
9	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Starting Condition	IS 13779 Cl. No. 12.14, IS 14697 Cl. No. 12.13 CBIP Publication No.: 304, Cl. No. 5.6.5 CBIP Publication No.: 325, Cl. No. 5.6.5 IEC 62052-11 IEC 62053-21, Cl. No. 8.3 IEC 62053-22, Cl. No. 8.3 IEC 62053-23, Cl. No. 8.3 IEC 62053-24, Cl. No. 8.4 Cl. No. 5.6.4 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2), Cl. No. 8 of IEC 62055-31
10	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Insulating Oils)	Flash Point	IS 335
11	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Insulating Oils)	Interfacial Tension	IS 335
12	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Mineral Insulating Oil)	Breakdown Voltage	IEC 60422
13	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Mineral Insulating Oil)	Breakdown Voltage	IEC 61156

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14	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Mineral Insulating Oil)	Breakdown Voltage	IS 1866
15	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Mineral Insulating Oil)	Breakdown Voltage	IS 6792
16	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Mineral Insulating Oils)	Flash Point	IS 1866
17	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Mineral Insulating Oils)	Flash Point	ISO 2719
18	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Mineral Insulating Oils)	Flash Point	IEC 60422
19	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Mineral Insulating Oils)	Resistivity	IEC 60422
20	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Mineral Insulating Oils)	Sediment Sludge	IS 335
21	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Acidity (Neutralization Value)	IEC 62021 (Part 1)
22	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Acidity (Neutralization Value)	IEC 62021 (Part 2)
23	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Acidity (Neutralization Value)	IEC 62770
24	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Breakdown Voltage	IEC 61156
25	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Breakdown Voltage	IEC 62770
26	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Color and Appearance	IEC 62770
27	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Density @15 °C	IEC 62770

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28	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Density @15 °C	ISO 3675
29	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Dielectric Dissipation factor	IEC 60247
30	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Dielectric Dissipation factor	IEC 62770
31	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Flash Point	IEC 62770
32	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Flash Point	ISO 2719
33	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Resistivity	IEC 60247
34	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Resistivity	IEC 62770
35	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Water Content	IEC 60814
36	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Natural Ester Oil)	Water Content	IEC 62770
37	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Acidity (Neutralization Value)	IEC 61099
38	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Acidity (Neutralization Value)	IEC 62021 (Part 1)
39	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Acidity (Neutralization Value)	IEC 62021 (Part 2)
40	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Breakdown Voltage	IEC 61099
41	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Breakdown Voltage	IEC 61156

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42	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Color and Appearance	IEC 61099
43	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Density @15 °C	IEC 61099
44	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Density @15 °C	ISO 3675
45	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Dielectric Dissipation factor	IEC 60247
46	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Dielectric Dissipation factor	IEC 61099
47	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Flash Point	IEC 61099
48	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Flash Point	ISO 2719
49	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Resistivity	IEC 60247
50	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Resistivity	IEC 61099
51	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Water Content	IEC 60814
52	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Material (Synthetic Ester Oil)	Water Content	IEC 61099
53	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612
54	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612
55	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612

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56	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612
57	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612
58	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612
59	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612
60	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612
61	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612
62	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Ester Oils)	Dissolved Gas Analysis	ASTM D 3612
63	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Insulating Oils)	Acidity (Neutralization Value)	IS 335
64	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Insulating Oils)	Appearance	IS 335
65	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Insulating Oils)	Breakdown Voltage	IS 335
66	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Insulating Oils)	Colour	ASTM D1500-12
67	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Insulating Oils)	Density @15 °C	IS 335
68	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Insulating Oils)	Dielectric Dissipation factor	IS 335
69	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Insulating Oils)	Water Content	IS 335

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70	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Acidity (Neutralization Value)	IEC 62021 (Part 2)
71	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Acidity (Neutralization Value)	IEC 62021 (Part 1)
72	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Acidity (Neutralization Value)	IS 1866
73	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Appearance	IEC 60296
74	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Carbon Type PNA Analysis	IS 13155
75	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Color and Appearance	IEC 60422
76	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Color and Appearance	IS 1866
77	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Color and Appearance	ISO 2049
78	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Density @15 °C	IEC 60422
79	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Density @15 °C	IS 1866
80	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Density @15 °C	ISO 3675
81	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dielectric Dissipation factor	IEC 60247
82	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dielectric Dissipation factor	IEC 60422
83	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dielectric Dissipation factor	IS 1866

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84	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
85	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
86	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
87	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
88	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
89	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
90	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
91	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
92	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
93	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60567
94	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599
95	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599
96	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599
97	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599

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98	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599
99	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599
100	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599
101	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599
102	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599
103	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IEC 60599
104	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593
105	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593
106	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593
107	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593
108	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593
109	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593
110	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593
111	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593

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112	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593
113	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 10593
114	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
115	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
116	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
117	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
118	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
119	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
120	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
121	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
122	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
123	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Dissolved Gas Analysis	IS 9434
124	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Furan Content	IEC 61198
125	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Inhibitors	IEC 60666

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126	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Inhibitors	IS 13631
127	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Interfacial Tension	ASTM D971
128	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Interfacial Tension	IS 1866
129	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Resistivity	IEC 60247
130	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Resistivity	IS 1866
131	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Sampling	IEC 60475
132	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Sampling	IEC 60567
133	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Sampling	IS 6855
134	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Sediment Sludge	IS 1866
135	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Water Content	IEC 60814
136	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials (Mineral Insulating Oils)	Water Content	IS 1866
137	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Lamination Thickness	IEC 60404 (Part 8-7)
138	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Lamination Thickness	IS 3024
139	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Lamination Thickness	IS 649
140	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Magnetic Polarization	IEC 60404 (Part 8-7)

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141	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Magnetic Polarization	IS 3024
142	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Magnetization Characteristics [B-H Curve] / AC B-H Curve/ AC Hysteresis Loop	As per ERDA Test Procedure No. GGN/CRGO/005
143	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Peak Value of Magnetic Polarization	IEC 60404 (Part 3)
144	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Peak Value of Magnetic Polarization	IS 649
145	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Specific Core Loss Measurement Test After Accelerated Ageing Test / Specific Total Loss Measurement Test After Accelerated Ageing Test	IEC 60404 (Part 8-7)
146	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Specific Core Loss Measurement Test After Accelerated Ageing Test / Specific Total Loss Measurement Test After Accelerated Ageing Test	IS 3024
147	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Specific Core Loss Measurement Test After Accelerated Ageing Test / Specific Total Loss Measurement Test After Accelerated Ageing Test	IS 649
148	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Specific Iron / Core Loss Measurement / Specific Total Loss Measurement	IEC 60404 (Part 3)
149	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Specific Iron / Core Loss Measurement / Specific Total Loss Measurement	IEC 60404 (Part 8-7)
150	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Specific Iron / Core Loss Measurement / Specific Total Loss Measurement	IS 3024
151	ELECTRICAL- MAGNETIC MATERIALS	CRGO Sheet	Specific Iron / Core Loss Measurement / Specific Total Loss Measurement	IS 649
152	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Adherence Test	IS 649

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153	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Adherence Test	ISO 7799
154	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Ductility / Bend test	IEC 60404 (Part 8-7)
155	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Ductility / Bend test	IS 3024
156	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Ductility / Bend test	IS 649
157	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Ductility / Bend test	ISO 7799
158	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Insulation Coating Resistance	IEC 60404 (Part 8-7)
159	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Lamination Thickness	IEC 60404 (Part 8-7)
160	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Lamination Thickness	IS 3024
161	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Lamination Thickness	IS 649
162	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Magnetic Permeability	ASTM A343
163	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Magnetic Permeability	IS 649
164	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Magnetic Polarization	IEC 60404 (Part 8-7)
165	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Magnetic Polarization	IS 3024
166	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Magnetization Characteristics [B-H Curve] / AC B-H Curve/ AC Hysteresis Loop	As per ERDA Test Procedure No. GGN/CRGO/008
167	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Peak Value of Magnetic Polarization	IEC 60404 (Part 2)
168	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Specific Core Loss Measurement Test After Accelerated Ageing Test / Specific Total Loss Measurement Test After Accelerated Ageing Test	IEC 60404 (Part 8-7)

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169	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Specific Core Loss Measurement Test After Accelerated Ageing Test / Specific Total Loss Measurement Test After Accelerated Ageing Test	IS 3024
170	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Specific Core Loss Measurement Test After Accelerated Ageing Test / Specific Total Loss Measurement Test After Accelerated Ageing Test	IS 649
171	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Specific Iron / Core Loss Measurement / Specific Total Loss Measurement	ASTM A343
172	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Specific Iron / Core Loss Measurement / Specific Total Loss Measurement	IEC 60404 (Part 2)
173	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Specific Iron / Core Loss Measurement / Specific Total Loss Measurement	IEC 60404 (Part 8-7)
174	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Specific Iron / Core Loss Measurement / Specific Total Loss Measurement	IS 3024
175	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Specific Iron / Core Loss Measurement / Specific Total Loss Measurement	IS 649
176	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Stacking Factor	ASTM A719
177	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Stacking Factor	IEC 60404 (Part 8-7)
178	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Stacking Factor	IEC 60404 (Part 13)
179	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Stacking Factor	IS 3024
180	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Stacking Factor	IS 649
181	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Surface Insulation Resistance	IEC 60404 (Part 11)
182	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Surface Insulation Resistivity	ASTM A717

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183	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Surface Insulation Resistivity	IS 3024
184	ELECTRICAL- MAGNETIC MATERIALS	CRGO Strips	Surface Insulation Resistivity	IS 649
185	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	1. Current Transformers (up to 3200 A, 33 KV)	Inter turn Overvoltage Test	Cl. No. 7.3.204 of IS 16227-2
186	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A), 33 KV	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.1.2 of IS 2705 (Part 2)
187	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of secondary winding resistance.	Cl. No. 6.2 of IS 2705 (Part 4)
188	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of secondary winding resistance.	Cl. No. 7.3.201 of IEC 61869-2
189	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of secondary winding resistance.	Cl. No. 7.3.201 of IS 16227-2
190	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.1.2 of IS 2705 (Part 2)
191	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.2.6.202 & 7.5.2 of IEC 61869-2
192	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.2.6.202 & 7.5.2 of IEC 61869-2
193	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.2.6.202 & 7.5.2 of IS 16227-2

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194	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.2.6.202 & 7.5.2 of IS 16227-2
195	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Power frequency voltage withstand test.	Cl. No, 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1
196	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Power frequency voltage withstand test.	Cl. No, 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-2
197	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Power frequency voltage withstand test.	Cl. No, 7.3.1, 7.3.3 & 7.3.4 of IS 16227-2
198	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Power frequency voltage withstand test.	Cl. No. 9.3 & 9.4 of IS 2705 (Part 1)
199	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.1.1 & 7.2.1 of IS 2705 (Part 2 & Part 3)
200	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.1.1 & 7.2.1 of IS 2705 (Part 2 & Part 3)
201	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IEC 61869-1
202	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IEC 61869-1
203	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IEC 61869-2
204	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IEC 61869-2

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205	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IS 16227-2
206	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IS 16227-2
207	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for Composite error of protective current transformer	Cl. No. 7.1.2 & 7.2.2 of IS 2705 (Part 3)
208	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for Composite error of protective current transformer	Cl. No. 7.2.6.203 & 7.3.5.203 of IEC 61869-2
209	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for Composite error of protective current transformer	Cl. No. 7.2.6.203 & 7.3.5.203 of IS 16227-2
210	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 6.1 of IS 2705 (Part 4)
211	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 6.1 of IS 2705 (Part 4)
212	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 7.3.203 of IEC 61869-2
213	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 7.3.203 of IEC 61869-2
214	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 7.3.203 of IS 16227-2
215	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 7.3.203 of IS 16227-2

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216	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for turns ratio error	Cl. No. 6.3 of IS 2705 (Part 4)
217	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for turns ratio error	Cl. No. 7.2.6.202 & 7.5.2 of IS 16227-2
218	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for turns ratio error	Cl. No. 7.3.5.206 of IEC 61869-2
219	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Verification of markings	Cl. No. 7.3.6 of IEC 61869-1
220	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Verification of markings	Cl. No. 9.2 of IS 2705 (Part 1)
221	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Verification of markings	IS 16227-2
222	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV) Combined unit	Test for accuracy	IS 16227-4
223	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Determination of secondary winding resistance.	IS 16227-4
224	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Determination of the Instrument security factor of measuring current transformer	IS 16227-4
225	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Determination of the Instrument security factor of measuring current transformer	IS 16227-4
226	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Power frequency voltage withstand test.	IS 16227-4

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227	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for accuracy	IS 16227-4
228	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for Composite error of protective current transformer	Cl. No. 7.2.6.203 & 7.3.5.203 of IS 16227-4
229	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	IS 16227-4
230	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	IS 16227-4
231	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for turns ratio error	IS 16227-4
232	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Verification of markings	Cl. No. 7.3.6 of IS 16227-4
233	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Potential Transformer & Capacitive Voltage Transformer (up to 33KV)	High Voltage Power Frequency Dry Test in Secondary	Cl. No. 9.3.1.1 & 9.3.2.1 of IS 3156 (Part-1), Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-3, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IS 16227-3, IS 16227 Part 5
234	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Potential Transformer & Capacitive Voltage Transformer (up to 33KV)	Separate Source Voltage withstand Test	Cl. No. 9.3.1.1 & 9.3.2.1 of IS 3156 (Part 1), Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-3, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IS 16227-3, IS 16227 Part 5
235	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Potential Transformer & Capacitive Voltage Transformer (up to 33KV)	Test of Accuracy	Cl. No. 9.3.1.1 & 9.3.2.1 of IS 3156 (Part 1), Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-3, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IS 16227-3, IS 16227 Part 5

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236	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Potential Transformer & Capacitive Voltage Transformer (up to 33KV), Combined unit	Verification of Marking	Cl. No. 9.3.1.1 & 9.3.2.1 of IS 3156 (Part 1), Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-3, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IS 16227-3, IS 16227 Part 5

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Site Facility				
1	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	AC High Voltage Test	IS 13779 Cl. No. 12.7.6.3, IS 14697 Cl. No.12.7.6.3 CBIP Publication No.: 304, Cl. No. 5.4.6.3 CBIP Publication No.: 325, Cl. No. 5.4.6.3 IEC 62052-11, Cl. No. 7.3 IEC 62052-31, Cl. No. 6.10 IEC 62053-21, Cl. No. 7.4 IEC 62053-22, Cl. No. 7.4 IEC 62053-23, Cl. No. 7.4 IEC 62053-24, Cl. No. 7.5 Cl. No. 5.4.6.3 of IS 15884, Cl. No. 6.10.6 of IS 16444 (Part 1), Cl. No. 6.10.6 of IS 16444 (Part 2)
2	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Insulation Resistance/ Insulation Test	IS 13779 Cl. No. 12.7.6.4, IS 14697 Cl. No. 12.7.6.4 CBIP Publication No.: 304, Cl. No. 5.4.6.4 CBIP Publication No.: 325, Cl. No. 5.4.6.4 of IS 15884, Cl. No. 6.10.6 of IS 16444 (Part 1), Cl. No. 6.10.6 of IS 16444 (Part 2)
3	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Influence Quantity a) Frequency Variation b) Voltage Variation c) DC Magnetic induction of external origin d) AC Magnetic induction of external origin e) Magnetic induction of Permanent Magnet	Cl. No. 12.11 of IS 13779, Cl. No. 12.10 of IS 14697, Cl. No. 5.6.2 of CBIP Publication No.: 304, Cl. No. 5.6.2 of CBIP Publication No.: 325, IEC 62052-11 Cl. No. 8.2 of IEC 62053-21, Cl. No. 8.2 of IEC 62053-22, Cl. No. 8.2 of IEC 62053-23, Cl. No. 8.3 of IEC 62053-24, Cl. No. 4.6.2 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2), Cl. No. 8 of IEC 62055-31

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4	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of limits of errors/ Test of Accuracy requirement	IS 13779 Cl. No. 11.1, IS 14697 Cl. No. 11.1 CBIP Publication No.: 304, Cl. No. 5.6.8 CBIP Publication No.: 325, Cl. No. 4.6.2 IEC 62052-11 IEC 62053-21, Cl. No. 8.1 IEC 62053-22, Cl. No. 8.1 IEC 62053-23, Cl. No. 8.1 IEC 62053-24, Cl. No. 8.2 IEC 62055-31, Cl. No. 8.0 IS 13875 (Part 1 & 3), Cl. No. 4.6.1 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2)
5	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Meter Constant	IS 13779 Cl. No. 12.15, IS 14697 Cl. No. 12.14 CBIP Publication No.: 304, Cl. No. 5.6.6 CBIP Publication No.: 325, Cl. No. 5.6.6 IEC 62052-11 IEC 62053-21, Cl. No. 8.4 IEC 62053-22, Cl. No. 8.4 IEC 62053-23, Cl. No. 8.4 IEC 62053-24, Cl. No. 8.5 Cl. No. 5.6.5 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 8 of IEC 62055-31, Cl. No. 6.12 of IS 16444 (Part 2)
6	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of No Load Condition	IS 13779 Cl. No. 12.13, IS 14697 Cl. No. 12.12 CBIP Publication No.: 304, Cl. No. 5.6.4 CBIP Publication No.: 325, Cl. No. 5.6.4 IEC 62052-11 IEC 62053-21, Cl. No. 8.3 IEC 62053-22, Cl. No. 8.3 IEC 62053-23, Cl. No. 8.3 IEC 62053-24, Cl. No. 8.4 Cl. No. 5.6.3 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2), Cl. No. 8 of IEC 62055-31

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7	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Power Consumption Test	IS 13779 Cl. No. 12.7.1, IS 14697 Cl. No. 12.7.1 CBIP Publication No.: 304, Cl. No. 5.4.1 CBIP Publication No.: 325, Cl. No. 5.4.1 IEC 62052-11 IEC 62053-21, Cl. No. 7.1 IEC 62053-22, Cl. No. 7.1 IEC 62053-23, Cl. No. 7.1 IEC 62053-24, Cl. No. 7.2 Cl. No. 5.4.1 of IS 15884, Cl. No. 6.10.1 of IS 16444 (Part 1), Cl. No. 6.10.1 of IS 16444 (Part 2), Cl. No. 7.3 of IEC 62055-31
8	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Repeatability of Errors	IS 13779 Cl. No. 12.17, IS 14697 Cl. No. 12.16 CBIP Publication No.: 304, Cl. No. 5.6.9 CBIP Publication No.: 325, Cl. No. 5.6.7 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2)
9	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	1. Electrical and Electronic (Static) Energy Meter 2. Prepayment/ Smart Meters	Test of Starting Condition	IS 13779 Cl. No. 12.14, IS 14697 Cl. No. 12.13 CBIP Publication No.: 304, Cl. No. 5.6.5 CBIP Publication No.: 325, Cl. No. 5.6.5 IEC 62052-11 IEC 62053-21, Cl. No. 8.3 IEC 62053-22, Cl. No. 8.3 IEC 62053-23, Cl. No. 8.3 IEC 62053-24, Cl. No. 8.4 Cl. No. 5.6.4 of IS 15884, Cl. No. 6.12 of IS 16444 (Part 1), Cl. No. 6.12 of IS 16444 (Part 2), Cl. No. 8 of IEC 62055-31
10	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 2. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of insulation resistance	Cl.no.21.2.e of IS 1180 (Part1)
11	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 2. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of insulation resistance	Cl.no.21.2.e of IS 1180 (Part1)
12	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 2. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of winding resistance	Cl.no.21.2.a of IS 1180 (Part 1)
13	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 2. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	No load loss and current	Cl.no.21.2.d of IS 1180 (Part 1)

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14	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 2. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	No load loss and current	Cl.no.21.2.d of IS 1180 (Part 1)
15	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 2. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Temperature rise	Cl.no.21.3.b of IS 1180 (Part 1)
16	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 2. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Voltage ratio and check of voltage vector relationship/phase displacement	Cl.no.21.2.b of IS 1180 (Part 1)
17	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.17 of IEC 60076 (Part 11)
18	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.17 of IEC 60076 (Part 11)
19	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	Measurement of winding resistance	Cl.no.13.2.a of IS 11171, IS 2026 Part 11, IEC 60076 Part 11
20	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.13.2.c of IS 11171, IS 2026 (Part-11)
21	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.13.2.d of IS 11171, IS 2026 Part-11
22	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	No load loss and current	Cl.no.13.2.d of IS 11171, IS 2026 Part-11
23	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	No load loss and current	Cl.no.13.2.d of IS 11171, IS 2026 Part-11
24	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	No load loss and current	Cl.no.18 of IEC 60076 (Part 11)
25	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	No load loss and current	Cl.no.18 of IEC 60076 (Part 11)
26	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	Temperature rise	Cl.no.13.1.h of IS 11171
27	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	Voltage ratio and check of voltage vector relationship/phase displacement	Cl.no.13.2.b of IS 11171, IS 2026 Part-11

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28	ELECTRICAL- INDUCTORS & TRANSFORMERS	1. Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	Voltage ratio and check of voltage vector relationship/phase displacement	Cl.no.16 of IEC 60076 (Part 11)
29	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 2. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.21.2.c of IS 1180 (Part 1)
30	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 2. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.21.2.c of IS 1180 (Part 1)
31	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV)	Measurement of winding resistance	Cl.no.15 of IEC 60076 (Part 11)
32	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 3. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Oil leakage	CBIP publication no.: 317
33	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of Insulation Resistance	CBIP Publication 317
34	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of winding resistance	Cl. no.10.1.1.a of IS 2026(Part 1)
35	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Harmonics of the no-load current	Cl. No. 10.6 of IS 2026 (Part I)
36	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.10.1.1.c of IS 2026 (Part 1)
37	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.10.1.1.c of IS 2026 (Part 1)

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38	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.11.1.2.1.c of IEC 60076 (Part 1)
39	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Impedance voltage/short circuit impedance and load loss.	Cl.no.11.1.2.1.c of IEC 60076 (Part 1)
40	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Induced AC Voltage tests/ Induced Voltage Withstand Test	Cl. no.10.1.1.e of IS 2026 (Part 1), IS 2026 (Part 3), Cl. no.21.2.f of IS 1180 (Part 1), Cl. no.13.2.f of IS 11171, Cl.no.11.1.2.1.e of IEC: 60076 (Part 1) IEC 60076 (Part-3), Cl.no.15 of IEC 60076 (Part 11)
41	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Magnetic balance	CBIP Publication 317
42	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of insulation resistance	Cl.no.10.1.3.j of IS 2026 (Part 1)
43	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of insulation resistance	Cl.no.10.1.3.j of IS 2026 (Part 1)
44	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of insulation resistance	Cl.no.11.1.4.h of IEC 60076 (Part 1)
45	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of insulation resistance	Cl.no.11.1.4.h of IEC 60076 (Part 1)

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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
46	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Measurement of winding resistance	Cl.no.11.1.2.1.a of IEC 60076 (Part 1)
47	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	No load loss and current	Cl.no.10.1.1.d of IS 2026 (Part 1)
48	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	No load loss and current	Cl.no.10.1.1.d of IS 2026 (Part 1)
49	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	No load loss and current	Cl.no.11.1.2.1.d of IEC 60076 (Part 1)
50	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	No load loss and current	Cl.no.11.1.2.1.d of IEC 60076 (Part 1)
51	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Separate-source voltage withstand test/ Applied Voltage Test	Cl. no.10.1.1.e of IS 2026 (Part 1), Cl.no.21.2.g of IS 1180 (Part 1), Cl.no.13.2.e of IS 11171, Cl.no.11.1.2.1.e of IEC 60076 (Part 1), Cl.no.15 of IEC 60076 (Part 11), IS 2026 Part 11
52	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Temperature rise	Cl.no.10.1.2.a of IS 2026 (Part 1)
53	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Temperature rise	Cl.no.11.1.3.a of IEC 60076 (Part 1)

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54	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Temperature rise	Cl.no.23 of IEC 60076 (Part 11)
55	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Voltage ratio and check of voltage vector relationship/phase displacement	Cl.no.10.1.1.b of IS 2026 (Part 1)
56	ELECTRICAL- INDUCTORS & TRANSFORMERS	1.Power transformers (2.5MVA -100 MVA/3.3 KV -220KV) 2 Dry type power transformers (5 KVA- 10 MVA/433 V- 33 KV) 3 Distribution transformers (non-sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV) 4. Distribution transformers(sealed type) (5 KVA - 2.5 MVA/ 240 V -33KV)	Voltage ratio and check of voltage vector relationship/phase displacement	Cl.no.11.1.2.1.b of IEC 60076 (Part 1)
57	ELECTRICAL- INDUCTORS & TRANSFORMERS	Distribution Transformers (5 KVA to 2.5 MVA/240V to 33 KV)	Pressure and Oil Leakage Test	Clause No. 21.5 of IS 1180 Part-1
58	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Distribution Transformers	Frequency Response	IEC 60076 (Part 18)
59	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	1. Current Transformers (up to 3200 A, 33 KV)	Inter turn Overvoltage Test	Cl. No. 7.3.204 of IS 16227-2
60	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A), 33 KV	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.1.2 of IS 2705 (Part 2)
61	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of secondary winding resistance.	Cl. No. 6.2 of IS 2705 (Part 4)
62	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of secondary winding resistance.	Cl. No. 7.3.201 of IEC 61869-2
63	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of secondary winding resistance.	Cl. No. 7.3.201 of IS 16227-2
64	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.1.2 of IS 2705 (Part 2)

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65	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.2.6.202 & 7.5.2 of IEC 61869-2
66	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.2.6.202 & 7.5.2 of IEC 61869-2
67	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.2.6.202 & 7.5.2 of IS 16227-2
68	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Determination of the Instrument security factor of measuring current transformer	Cl. No. 7.2.6.202 & 7.5.2 of IS 16227-2
69	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Power frequency voltage withstand test.	Cl. No, 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1
70	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Power frequency voltage withstand test.	Cl. No, 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-2
71	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Power frequency voltage withstand test.	Cl. No, 7.3.1, 7.3.3 & 7.3.4 of IS 16227-2
72	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Power frequency voltage withstand test.	Cl. No. 9.3 & 9.4 of IS 2705 (Part 1)
73	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.1.1 & 7.2.1 of IS 2705 (Part 2 & Part 3)
74	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.1.1 & 7.2.1 of IS 2705 (Part 2 & Part 3)
75	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IEC 61869-1

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76	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IEC 61869-1
77	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IEC 61869-2
78	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IEC 61869-2
79	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IS 16227-2
80	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for accuracy	Cl. No. 7.2.6 & 7.3.5 of IS 16227-2
81	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for Composite error of protective current transformer	Cl. No. 7.1.2 & 7.2.2 of IS 2705 (Part 3)
82	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for Composite error of protective current transformer	Cl. No. 7.2.6.203 & 7.3.5.203 of IEC 61869-2
83	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for Composite error of protective current transformer	Cl. No. 7.2.6.203 & 7.3.5.203 of IS 16227-2
84	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 6.1 of IS 2705 (Part 4)
85	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 6.1 of IS 2705 (Part 4)
86	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 7.3.203 of IEC 61869-2

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87	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 7.3.203 of IEC 61869-2
88	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 7.3.203 of IS 16227-2
89	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	Cl. No. 7.3.203 of IS 16227-2
90	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for turns ratio error	Cl. No. 6.3 of IS 2705 (Part 4)
91	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for turns ratio error	Cl. No. 7.2.6.202 & 7.5.2 of IS 16227-2
92	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Test for turns ratio error	Cl. No. 7.3.5.206 of IEC 61869-2
93	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Verification of markings	Cl. No. 7.3.6 of IEC 61869-1
94	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Verification of markings	Cl. No. 9.2 of IS 2705 (Part 1)
95	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV)	Verification of markings	IS 16227-2
96	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV) Combined unit	Test for accuracy	IS 16227-4
97	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Determination of secondary winding resistance.	IS 16227-4

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98	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Determination of the Instrument security factor of measuring current transformer	IS 16227-4
99	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Determination of the Instrument security factor of measuring current transformer	IS 16227-4
100	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Power frequency voltage withstand test.	IS 16227-4
101	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for accuracy	IS 16227-4
102	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for Composite error of protective current transformer	Cl. No. 7.2.6.203 & 7.3.5.203 of IS 16227-4
103	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	IS 16227-4
104	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for rated knee point e.m.f. and exciting current at rated knee point e.m.f.	IS 16227-4
105	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Test for turns ratio error	IS 16227-4
106	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Current Transformers (Up to 3200A, 33 KV), Combined Unit	Verification of markings	Cl. No. 7.3.6 of IS 16227-4
107	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Potential Transformer & Capacitive Voltage Transformer (up to 33KV)	High Voltage Power Frequency Dry Test in Secondary	Cl. No. 9.3.1.1 & 9.3.2.1 of IS 3156 (Part-1), Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-3, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IS 16227-3, IS 16227 Part 5

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108	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Potential Transformer & Capacitive Voltage Transformer (up to 33KV)	Separate Source Voltage withstand Test	Cl. No. 9.3.1.1 & 9.3.2.1 of IS 3156 (Part 1), Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-3, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IS 16227-3, IS 16227 Part 5
109	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Potential Transformer & Capacitive Voltage Transformer (up to 33KV)	Test of Accuracy	Cl. No. 9.3.1.1 & 9.3.2.1 of IS 3156 (Part 1), Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-3, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IS 16227-3, IS 16227 Part 5
110	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Potential Transformer & Capacitive Voltage Transformer (up to 33KV), Combined unit	Verification of Marking	Cl. No. 9.3.1.1 & 9.3.2.1 of IS 3156 (Part 1), Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-1, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IEC 61869-3, Cl. No. 7.3.1, 7.3.3 & 7.3.4 of IS 16227-3, IS 16227 Part 5