



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL POWER RESEARCH INSTITUTE, SWITCHGEAR TESTING AND DEVELOPMENT STATION, GOVINDPURA, BHOPAL, MADHYA PRADESH, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5181 **Page No** 1 of 122

Validity 10/06/2022 to 09/06/2024 **Last Amended on** 15/10/2022

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	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Acidity (neutralization value)	IS 1866:2017 / IEC 60422:2013, IEC 62021-1 2003/ IEC 62021-2
2	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Appearance	IS 1866:2017 / IEC 60422:2013, ISO 2049
3	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Density	IS 1866:2017 / IEC 60422:2013, ISO 3675
4	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Flash Point	IS 1866:2017 / IEC 60422:2013, ISO 2719 - A
5	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Interfacial Tension (IFT)	IS 1866:2017 / IEC 60422:2013, ASTM D971
6	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Particles (counting and sizing)	IS 1866:2017 / IEC 60422:2013, IEC 60970 2007, ISO 4406
7	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Sediment Sludge	IS 1866:2017 / IEC 60422:2013, Annex C of IS 1866:2017 / IEC 60422:
8	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Viscosity	IS 1866:2017 / IEC 60422:2013, ISO 3104
9	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Acidity	IS 335-2018, IEC 60296- 2012 , IEC 62021-1
10	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Appearance	IS 335-2018, IEC 60296
11	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Density at 20°C	IS 335-2018, IEC 60296- 2020, IS 1448 (Part 16) 2014, ISO 3675
12	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Flash Point	IS 335-2018, IEC 60296- 2020, IS 1448 (Part 21) - A 2019, ISO 2719 - A
13	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Interfacial Tension	IS 335-2018, IEC 60296- 2020, ASTM D971
14	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Particle Content	IS 335-2018, IEC 60296- 2020, IS 13236 : 2013 /IEC 60970
15	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Viscosity * at 40°C	IS 335-2018, IEC 60296- 2020, IS 1448 (Part 25/Sec 1) 2018, ISO 3104



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16	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled Electrical Equipment	Dissolved Gas Analysis/ Gas Content CH4	IS 9434 2019, IEC 60567 2011, IS 10593 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009, (Method C)/ IEEE Std C57.106
17	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled Electrical Equipment	Dissolved Gas Analysis/ Gas Content C2H6	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
18	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled Electrical Equipment	Dissolved Gas Analysis/ Gas Content C3H6	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
19	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled Electrical Equipment	Dissolved Gas Analysis/ Gas Content TDCG	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
20	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled Electrical Equipment	Dissolved Gas Analysis/ Gas Content C2H2	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
21	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content CO	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
22	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content H2	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106



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23	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content N2	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
24	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content O2	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
25	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content TGC	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
26	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled Electrical Equipment.	Dissolved Gas Analysis/ Gas Content C2H4	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
27	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment.	Dissolved Gas Analysis/ Gas Content CO2.	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106 :
28	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electricals equipment	Dissolved Gas Analysis/ Gas Content C3H8	IS 9434 2019, IEC 60567 2011, IS 10593 : 2018, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
29	ELECTRICAL- CABLES & WIRES	CABLE ACCESSORIES FOR EXTRUDED POWER CABLES, PVC Insulated Electric Cables, Cross Linked Polyethylene Insulated Thermoplastic & PVC Sheathed Cables,	Short Circuit Tests	IS 13573 : Part 1 : 2011; IS 13573 : Part 2 : 2011; IS 13573 : Part 3 : 2011; IS 1554 : Part 1 : 1988; IS 1554 : Part 2 : 1988; IS 7098 : Part 2 : 2011; IS 5819 : 1970; CPRI Doc. No. TOP-02 issue No. 5:



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30	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Stray d.c. magnetic induction of external origin 67mT	IS13779:1999 A.1 to 5Cl. Cl 12.11 (Withdrawn), CBIP-325:2015 Cl.5.6.2.2, IS16444(Part 1):2015A.1&2 Cl.6.12, IS13779:2020 Cl.12.11,
31	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2 AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Dielectric strength	IS15884:2010 Cl.G8,IS16444 (Part 1): 2015 A.1, 2 Cl.7.2,IEC62055 -31, Cl. Annex C 8
32	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2 ; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Short circuit current carrying capacity	IS15884:2010 Cl.G6, IS16444 (Part 1): 2015 A.1 and 2 Cl.7.2,IEC62055 -31:2005,Cl. Annex C6
33	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2 AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Minimum Switched Current	IS15884,2010 Cl. G7 IS 16444 (Part 1): 2015 Cl. 7.2 A.1 and 2 IEC 62055 -31, Cl Annex C7
34	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Normal Operation	IS15884:2010 Cl.G2,IS16444 (Part 1): 2015 A.1,2Cl.7.2,IEC62055 -31:2005, Cl. Annex C2
35	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Test for Smart Meter Communicability	IS16444 (Part 1): 2015 A.1 and 2 Cl.10.6.2
36	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	a.c Static Direct Connected Watthour Smart Meter Class 1 and Class 2	Smart Meter Functional Requirements	Cl.11 of IS 16444 (Part 1)- 2015 Amd 1 -2017 Amd 2 -2019:
37	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	a.c Static Transformer operated Watthour and Var-hour Smart Meters Class 0.2S,0.5S and 1.0S	Smart Meter Functional Requirements	Cl.10 of IS 16444 (Part 2)- 2017 Amd 1 -2019
38	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2	Effects of Disturbances on Time Keeping	IS15884:2010 ,Cl. D-4,IEC62055 -31,Cl. D- 5:
39	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2	limits of error and Interpretation of test Results	IS15884:2010 Cl.5.6.6, IEC62055 -31:2005 Cl.8.0



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40	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2	Radio Interference Measurement - Conducted emission-(0.15MHz to 30MHz)	IS15884:2010Cl.5.5.5,IEC62055-31:2005Cl.7.8.8,
41	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Functional requirements	IS15884:2010 Cl.6.0,IEC62055-31, Cl.9.0
42	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Test of resistance to heat & fire	IS15884:2010 Cl.5.2.4,IEC62055-31:2005, IEC62052-31:2015Cl.9.3.2.1,
43	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Abnormal voltage condition	IS15884:2010,IEC62055-31:2005,IS16444 (Part 1):2015 A.2 Cl.6.10.7,
44	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Electrical Endurance	IS15884:2010 Cl.G3,IS16444 (Part 1): 2015 A.1 and 2Cl.7.2,IEC62055-31:2005,Cl. Annex C3
45	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Electrostatic Discharge Test	IS15884:2010Cl.5.5.2,IEC62055-31:2005Cl.7.8.2, IS16444 (Part 1): 2015 A.1&2 Cl.6.11,
46	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Fast transient burst test	IS15884:2010Cl.5.5.4,IEC62055-31:2005Cl.7.8.4, IS16444(Part1):2015A.1,2 Cl.6.11,
47	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Fault current making capacity	IS15884:2010 Cl.G5,IS16444 (Part 1): 2015 A.1 and 2Cl.7.2,IEC62055-31,Cl. Annex C5:
48	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Influence of heating	IS15884:2010 Cl.5.4.5,IEC62055-31:2005Cl.7.5, IS16444 (Part 1): 2015 A.1&2 Cl.6.10.5,IEC62052-31:2015Cl.10.4,
49	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Influence of self heating	IS15884:2010Cl.5.4.4,IEC62055-31:2005Cl.7.6, IS16444(Part1): 2015 A.1&2 Cl.6.10.4,



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50	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Influence of supply Voltage	CI.5.4.2, IS15884:2010 CI.4.4.2 & 5.4.2,IEC62055 -31:2005CI.7.2,IS16444 (Part 1): 2015 A.1&2 Cl.6.10.2,
51	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Line to Load Voltage Surge Withstand	IS15884:2010 CI.G4,IS16444 (Part 1): 2015 A.1,2CI.7.2,IEC62055 -31:2005, Cl. Annex C4
52	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Load Switching capability/ performance requirement for load switching	IS15884:2010 Cl. 4.6.6.2,IEC62055 -31:2005,CI.7.9,IS16444 (Part 1)A.1 ,2 Cl.7.2:
53	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Short time over current Test	IS15884:2010CI.4.4.3,IEC62055 -31:2005CI.7.4,IS16444(Part1): 2015 A.1&2 Cl.6.10.3,
54	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Surge immunity test	IS15884:2010 Cl.5.5.7,IEC62055 -31:2005CI.7.8.6,IS16444 (Part1):2015,A.1& 2Cl.6.11,
55	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Test of Immunity to electromagnetic HF/RF Fields.	IS15884:2010 Cl.5.5.3,IEC62055-31:2005CI.7.8.3,IS16444 (Part 1): 2015 A.1 and 2 Cl.6.11,
56	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Test on limits of error	IS15884:2010 Cl.4.6.1, IEC62055 -31:2005 Cl.8.0,
57	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Abnormal a.c.magnetic Induction of external Origin (10 mTesla)	IS15884:2010 Cl.5.6.2.4,
58	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	AC voltage test	IS15884:2010 Cl.5.4.6.3, IEC62055 -31:2005 Cl.7.7,
59	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Ambient temp. influence	IS15884:2010 Cl.5.6.3, IEC62055 -31:2005 Cl.8.0,
60	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Cold test	IS15884:2010 Cl.5.3.1,IEC62055 -31:2005Cl.No.6.0



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61	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Continuous abnormal dc.magnetic Induction of external Origin(200/270 mTesla)	IS15884:2010 Cl.4.6.2,
62	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Crystal-controlled Clocks on ac supplies	IS15884:2010,Cl. D-3.2.1, IEC62055 -31,Cl. D- 4.3.1,
63	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Crystal-controlled Clocks on Operation Reserve	IS15884:2010,Cl. D-3.2.2,IEC62055 -31,Cl. D- 4.3.2:
64	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Damp heat cyclic test	IS15884:2010 Cl.5.3.1,IEC62055 -31:2005Cl.No.6.0,
65	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	DC & even harmonics in current circuit	IS15884:2010 Cl.4.6.2, IEC62055 -31:2005 Cl.4.6.3
66	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Dry heat test	IS15884:2010 Cl.5.3.1,IEC62055 -31:2005IEC62052-11:2020 Cl.8.3.3,IEC62053-21:2020 Cl.8 IEC62053-22:2020 Cl.8,IEC62053-23:2020 Cl.8,IEC62053-24:2020 Cl.8,
67	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Frequency variation	IS15884:2010 Cl.4.6.2, IEC62055 -31:2005 Cl.8.0
68	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	General and constructional requirements: General, Meter case, Window,Terminals, Terminal Block and Protective earth Terminal, Terminal Cover, Clearances and Creepage distances, Insulating encased meter,Display of measured values, Output Device, Keypad Interference	IS15884:2010 Cl.4.1, 4.2.12.3,IEC62055 -31:
69	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Impulse voltage test	IS15884:2010 Cl.5.4.6.2, IEC62055 -31:2005 Cl.7.7,



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70	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Insulation test	IS15884:2010 Cl.5.4.6.1, IEC62055 -31:
71	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Magnetic induction of external origin (0.5mT)	IS15884:2010 Cl.4.6.2, IEC62055 -31:2005Cl.7.7,
72	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Marking of meters Name Plate Connection diagrams and terminal Marking	IS15884:2010 Cl.4.2, IEC62055 -31
73	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Operation of an Accessories	IS15884:2010 Cl.4.6.2,IEC62055 -31:
74	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Power Consumption	IS15884:2010 Cl 5.4.1,IEC62055 -31:2005Cl.7.3,
75	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Protection against penetration of dust and water	IS15884:2010 Cl5.2.5,IEC62055-31:2005, IEC62052-31,2015Cl.11,
76	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Reversed phase sequence	IS15884:2010 Cl.4.6.2, IEC62055 -31:2005 Cl.8.0,
77	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Shock test	IS15884:2010 Cl.5.2.2, IEC62055 -31:2005Cl.5.2.2,
78	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Spring Hammer Test/ mechanical test of meter case	IS15884:2010 Cl.5.2.1,IEC62055-31:2005,IEC 62052-31:2015Cl.8.2,
79	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Stray d.c.magnetic induction of external origin 67mT	IS15884:2010 Cl.4.6.2,
80	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Test of Initial start -up of meter and Test of no load condition	IS15884:2010 Cl.5.6.3, IEC62055 -31:2005 Cl.8.0,



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81	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Test of meter constant	IS15884:2010 Cl.5.6.5, IEC62055 -31:2005 Cl.8.0,
82	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Test of repeatability of Error	IS15884:2010 Cl.5.6.7, IEC62055 -31:2005 Cl.7.7,
83	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Test of starting condition,	IS15884:2010 Cl.5.6.4, IEC62055 -31:2005 Cl.8.0
84	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Test on consumption based, time base charging functions	IS15884:2010 Cl.5.9,IEC62055 -31
85	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Vibration test (Sine and random)	IS15884:2010 Cl.5.2.3,IEC62055 -31:2005cl.no.5.2.3,
86	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Voltage unbalance	IS15884:2010 Cl.4.6.2, IEC62055 -31:2005 Cl.8.0,
87	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Voltage variation	IS15884:2010 Cl.4.6.2, IEC62055 -31:2005 Cl.8.0,
88	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC direct connected Static prepayment Meters for Active Energy Class 1 and 2;	Waveform 10% of 3rd harmonic in the current	IS15884:2010 Cl.4.6.2,
89	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Vibration test (Sine and random)	IS14697:1999A.1 to 4,Cl.12.3.2(Withdrawn),CBIP - 325:2015 Cl.5.2.3,IS16444 (Part 2):2017 A.1 Cl.6.5,IEC62052-11:2020 Cl.5.2.1,IEC62053-21:2020,IEC 62053-22:2020,IEC62053-23:2020,IEC62053-24:2020,IS14697,Cl.12.3.2



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90	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Impulse voltage test	IS14697: 1999 A.1 to 4 Cl.12.7.6.2 (Withdrawn), CBIP-325:2015 Cl.5.4.6.2, IS16444(Part 2):2017A.1Cl.6.10.6, IS14697:2021,Cl.12.7.6.2, IEC62052-31:2015 Cl.6.10.3.3, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24:
91	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Insulation test	IS14697: 1999 A.1to4 Cl.12.7.6.4 (Withdrawn), CBIP-325:2015 Cl.5.4.6.4, IS16444(Part 2):2017 A.1Cl.6.10.6, IS13779:2020 Cl.12.7.6.4, IS14697 Cl.12.7.6.4,
92	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Test of Initial start -up of meter and Test of no load condition	IS14697: 1999 A.1 to 4 Cl.12.12 (Withdrawn), CBIP-325:2015 Cl.5.6.4, IS16444(Part 2):2017A.1Cl.6.12, IS14697:2021Cl.12.12, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24,Cl.7.6:
93	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	AC voltage test	IS14697: 1999 A.1 to 4 Cl.12.7.6.3 (Withdrawn), CBIP-325:2015 Cl.5.4.6.3, IS16444(Part 2):2017 A.1Cl.6.10.6, IS14697:2021 Cl.12.7.6.2, IEC62052-31:2015Cl.6.10.3.3, IEC62052-11:2020, IEC62053-21:2020 IEC 62053-22:2020, IEC62053-24:
94	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Electrostatic Discharge Test	IS14697, 1999,A.1to 4, Cl.12.8.2(Withdrawn), CBIP - 325:2015Cl.5.5.2,IS16444 (Part2) A.1 Cl.6.11, IEC62052-11:2020Cl.9.3.3, IEC62053-21:2020,IEC62053-2 2:2020, IEC62053-24:2020, IS14697,Cl.12.8.2



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95	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour SmartMeterClass 0.2S,0.5S and 1.0S	Radio Interference Measurement - Conducted emission-(0.15MHz to 30MHz)	IS14697:1999A.1to4Cl.12.8.5(Withdrawn), CBIP -325:2015Cl.5.5.5,IS16444(Part 2)A.1Cl.6.11,IS14697Cl.12.8.6(a),
96	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Dry heat test	IS14697:1999 A.1 to 4,Cl.12.6.1(Withdrawn), CBIP-325:2015 ,Cl.6.9, IS16444 (Part 2):2017 A.1 Cl.6.9,IEC62052-11:2020 Cl.8.3.3,IEC62053-21:2020 Cl.8 IEC62053-22:2020 Cl.8,IEC62053-24:2020 Cl.8,IS14697,Cl.12.6.1:
97	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5, AC.Static Transformer operated Watthour and VAR - hour SmartMeterClass 0.2S,0.5S and 1.0S	Radio Interference Measurement- Radiated emission-(30MHz to 300MHz)	IS14697:1999A.1to4Cl.12.8.5(Withdrawn), CBIP-325:2015Cl.5.5.5,IS 16444 (Part 2) :2017A.1Cl.6.11, IS14697Cl.12.8.6(a)
98	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart	Test on limits of error	IS14697: 1999 A.1 to 4 Cl.11.1 (Withdrawn), CBIP-325:2015 Cl.5.4.6.8, IS16444(Part 2):2017 A.1Cl.6.12, IS14697:2021Cl.11.1, IEC62052-11:2020, IEC62053-21:2020, IEC62053-23:2020, IEC62053-24, Cl.7.9:
99	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Marking of meters Name Plate Connection diagrams and terminal Marking	IS14697:1999A.1 to4Cl.7.0(Withdrawn),CBIP: 325:2015 Cl.4.2.2.11,IS16444(Part2):2017A.1 Cl.6.8, IEC62052-11:2020,IEC62053-21:2020,IEC62053-22:2020,IEC62053-24:2020,IS14697Cl.7.0,
100	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour SmartMeterClass 0.2S,0.5S and 1.0S	Abnormal a.c.magnetic Induction of external Origin (10 mTesla)	IS14697: 1999 A.1 to 4 Cl.12.10 (Withdrawn), CBIP-325:2015 Cl.5.6.2.4, IS16444(Part 2):2017A.1Cl.6.12, IS14697,Cl.12.10



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101	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Surge immunity test	IS16444(Part2): 2017A.1Cl.6.11, IS14697Cl.12.8.5,2021,IEC62052-11:2020 Cl.9.3.9,IEC62053-21:2020,IEC62053-22:2020,IEC62053-23:2020,IEC62053-24:2020,IEC62052-31:
102	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart	limits of error and Interpretation of test Results	IS14697: 1999 A.1 to 4 Cl.12.15 (Withdrawn), CBIP-325:2015 , IS16444(Part 2):2017A.1Cl.6.12, IS14697:2021Cl.12.15, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24
103	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Auxiliary voltage +/- 15%	IS14697:1999 A.1 to 4 Cl.12.10(Withdrawn),CBIP - 325:2015Cl.4.2.2.10, IS16444 (Part 2): 2017 A.1Cl.6.12, IS14697:2021,Cl.12.10, IEC62052-11:2020 Cl.9.4.8, IEC62053-21:2020 Cl.7.10,IEC62053-22:2020 Cl.7.10, IEC62053-24Cl.7.10,
104	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Frequency variation	IS14697: 1999 A.1 to 4 Cl.12.10 (Withdrawn), CBIP-325:2015 Cl.5.4.6.3, IS16444(Part 2):2017A.1 Cl.6.12, IS14697:2021Cl.12, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24,Cl.7.10:
105	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Reversed phase sequence	IS14697: 1999 A.1 to 4 Cl.12.10 (Withdrawn), CBIP-325:2015 Cl.4.6.3, IS16444(Part 2):2017A.1Cl.6.12, , IS14697:2021 Cl.12.10, IEC62052-11:2020,Cl.9.4.7, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24,Cl.7.10,:



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106	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Test of immunity to earth/phase fault	IS14697:1999 A.1 to 4Cl.12.17(Withdrawn), CBIP - 325:2015, IS16444(Part 2) :2017 A.1 Cl.6.10.7, IEC62052-11: 2020Cl.9.4.13,IEC62053-21:20 20 Cl.7.10,IEC62053-22:2020Cl.7. 10,IEC62053-24:2020 Cl.7.10,IS14697,Cl.12.17:
107	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Test of meter constant	IS14697: 1999 A.1 to 4 Cl.12.14 (Withdrawn), CBIP-325:2015 Cl.5.4.6.6, IS16444(Part 2):2017A.1 Cl.6.12, IS14697:2021 Cl.12.14, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24,Cl.7.4
108	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Test of repeatability of Error	IS14697: 1999 A.1 to 4 Cl.12.16 (Withdrawn), CBIP-325:2015 Cl.5.6.9, IS16444(Part 2):2017A.1Cl.6.12, IS14697:2021Cl.12.16, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020,IEC62053-2 3:2020, IEC62053-24,Cl.7.8:
109	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Test of starting condition	IS14697: 1999 A.1 to 4 Cl.12.13 (Withdrawn), CBIP-325:2015 Cl.5.4.6.5, IS16444(Part 2):2017A.1 Cl.6.12, IS14697:2021Cl.12.13, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24,CL.7.7:
110	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Voltage unbalance	IS14697: 1999 A.1 to 4 Cl.12.10 (Withdrawn), CBIP-325:2015 Cl.4.6.3, IS16444(Part 2):2017A.1Cl.6.12, IS14697:2021 Cl.12.10, IEC62052-11:2020 Cl.9.4.5, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24,Cl.7.10:



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111	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Voltage variation	IS14697: 1999 A.1 to 4 Cl.12 (Withdrawn), CBIP-325:2015, IS16444(Part 2):2017A.1Cl.6.12, , IS14697:2021 Cl.12, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24,Cl.7.10:
112	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Cold test	IS14697:1999 A.1 to 4Cl.12.6.2(Withdrawn), CBIP - 325:2015 Cl.5.3.2,IS16444 (Part 2):2017 A.1 Cl.6.9,IEC62052-11:2020 Cl.8.3.4,IEC62053-21:2020 Cl.8,IEC62053-22:2020 Cl.8,IEC62053-23:2020 Cl.8,IEC62053-24:2020 Cl.8,IS14697Cl.12.6.2
113	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Damp heat cyclic test	IS14697:1999A.1 to 4Cl.12.6.3(Withdrawn), CBIP-325:2015 Cl.5.3.3,IS16444 (Part 2): 2017 A.1IEC62052-11:2020 Cl.8.3.5,IEC62053-21:2020 Cl.8,IEC62053-22:2020 Cl.8,IEC62053-23:2020 Cl.8,IEC62053-24:2020 Cl.8,IS14697,Cl.12.6.3:
114	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Influence of heating	IS14697:1999 A.1 to 4Cl.12.7.5(Withdrawn),CBIP - 325:2015 Cl.5.4.5,IS16444 (Part 2):2017 A.1 Cl.6.10.5, IEC62052-31:2015Cl.10.4,IEC6 2052-11:2020,IEC62053-21:20 20,IEC62053-22:2020,IEC6205 3-23:2020,IEC62053-24:2020,I S14697 ,Cl. 12.7.5
115	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Influence of self heating	IS14697:1999 A.1 to 4Cl.12.7.4(Withdrawn),CBIP-32 5:2015Cl.5.4.4,IS16444 (Part2):2017A.1Cl.6.10.4, IEC62052-11:2020 Cl.9.4.11,IEC62053-21, IEC62053-22, IEC62053-24:2020 Cl.7.10,IS14697Cl.12.7.4



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116	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Influence of supply Voltage	IS14697:1999 A.1 to 4 Cl.12.7.2(Withdrawn), CBIP-325:2015 ,IS16444 (Part 2) :2017A.1Cl.6.10.2, IEC62052-11:2020 Cl.9.3.2,IEC62053-21:2020Cl.7.10,IEC62053-22:2020,Cl.7.10,I EC62053-24:2020 Cl.7.10,IS14697,Cl.12.7.2,
117	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Operation of an Accessories	IS14697:1999 A.1 to 4 Cl.11.2(Withdrawn), CBIP - 325:2015 Cl.4.6.2,IS16444 (Part 2):2017Cl.6.12, IEC 62052-11, 2020,IEC 62053-21:2020 Clause. 8.2, IEC 62053-22:2020,, IEC 62053-24:2020,IS14697
118	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Phase of auxiliary Supply changed by 120°	IS14697:1999A.1to 4Cl.12.10(Withdrawn), IS16444 (Part 2) A.1:2017Cl.6.12, IS14697Cl.12.10,
119	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Power Consumption	IS14697:1999A.1to4Cl12.7.1(W ithdrawn),CBIP-325:2015 Cl 5.4.1,IS16444 (Part2) :2017A.1Cl.6.10.1, IEC62052-11:2020Cl.4.4,IEC62 053-21:2020,IEC62053-22:202 0,IEC62053-24:2020 Cl.4.4,IS14697Cl.12.7.1,
120	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Protection against penetration of dust and water	IS14697:1999 A.1 to 4Cl.12.5(Withdrawn) , CBIP - 325:2015 Cl. 5.2.5,IS16444 (Part 2):2017 A.1 Cl.6.5,IEC62052-31,2015Cl.11,I EC62052-11:2020,IEC62053-21 :2020,IEC62053-22:2020,IEC62 053-24:2020,IS14697,Cl.12.5
121	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Shock test	IS14697:1999A.1 to 4,Cl.12.3.2(Withdrawn),CBIP - 325:2015 Cl.5.2.3,IS16444 (Part 2):2017 A.1 Cl.6.5,IEC62052-11:2020 Cl.5.2.1,IEC62053-21:2020,IEC 62053-22:2020,IEC62053-23:2 020,IEC62053-24:2020,IS1469 7,Cl.12.3.3



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122	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Short time over current Test	IS14697:1999 A.1 to 4 Cl.12.7.3(Withdrawn), CBIP-325:2015Cl.5.4.3,IS16444 (Part2):2017A.1Cl.6.10.3, IEC62052-11:2020Cl.9.4.10,IEC 62053-21, IEC62053-22, IEC62053-24:2020Cl.7.10,IS14 697Cl.12.7.3,
123	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Spring Hammer Test/ mechanical test of meter case	IS14697:1999 A.1 to 4Cl.12.3.3(Withdrawn), CBIP-325:2015 Cl.5.2.1,IEC62052-31:2015Cl.8.2,IEC62052-11:2020,IEC62053-21:2020,IEC62053-22:2020,IEC 62053-24:2020,IS14697,Cl.12. 3.3
124	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Test of Immunity to electromagnetic HF/RF Fields.	IS14697:1999 A.1 to 4 Cl.12.8.3 (Withdrawn), CBIP - 325:2015 ,IS16444 (Part 2):2017A.1 Cl.6.11,IS14697Cl.12.8.3:
125	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Test of resistance to heat & fire	IS14697:1999 A.1 to 4 Cl.12.4 (Withdrawn), CBIP -325:2015 Cl.5.2.4, IS16444 (Part 2):2017A.1Cl.6.5, IEC62052-31:2015Cl.9.3.2.1,IE C62052-11:2020, IEC62053-21:2020,IEC62053-2 2:2020,IEC62053-23:2020,IEC6 2053-24:2020,IS14697Cl.12.4,
126	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Waveform 10% of 3rd harmonic in the current	IS14697: 1999 A.1 to 4 Cl.12.10 (Withdrawn), CBIP-325:2015 Cl.4.6.3, IS16444(Part 2):2017A.1Cl.6.12, , IS14697, Cl.12.10,
127	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour SmartMeterClass 0.2S,0.5S and 1.0S	Continuous abnormal dc. magnetic Induction of external Origin (200/270 mTesla)	IS14697: 1999 A.1 to 4 Cl.12.10 (Withdrawn), CBIP-325:2015 Cl.5.6.2.2, IS16444(Part 2):2017A.1Cl.6.12, IS14697, Cl.12.10:



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128	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour SmartMeterClass 0.2S,0.5S and 1.0S	Fast transient burst test	,IS14697:1999 A.1to4Cl.12.8.4(Withdrawn), CBIP-325:2015 Cl.5.5.3,IS16444(Part 2):2017A.1Cl.6.11, IEC62052-11:2020 Cl.9.3.6,IEC62053-21:2020 Cl.7.10,IEC62053-22:2020 Cl.7.10,IEC62053-24:2020 Cl.7.10,IS14697 Cl.12.8.4
129	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour SmartMeterClass 0.2S,0.5S and 1.0S	Magnetic induction of external origin (0.5mT)	IS14697: 1999 A.1 to 4 Cl.12.10 (Withdrawn), CBIP-325:2015 Cl.5.6.2.3, IS16444(Part 2):2017A.1Cl.6.12, IS14697:2021Cl.12.10, IEC62052-11:2020, Cl.9.3.12, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24:
130	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour SmartMeterClass 0.2S,0.5S and 1.0S	Stray d.c.magnetic induction of external origin 67mT	IS14697: 1999 A.1 to 4 Cl.12.10 (Withdrawn), CBIP-325:2015 Cl.5.6.2.2, IS16444(Part 2):2017A.1Cl.6.12, IS14697,Cl.12.10:
131	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	General and constructional requirements: General, Meter case, Window,Terminals, Terminal Block and Protective earth Terminal, Terminal Cover, Clearances and Creepage distances, Insulating encased meter,Display of measured values, Output Device,	IS14697:1999 A.1 to 4 Cl.6.0 (Withdrawn), CBIP - 325:2015 Cl.4.2.2,IS16444 (Part 2):2017 A.1 &2Cl.6.0, IEC62052-11:2020Cl.5.0,IEC62053-21:2020,IEC62053-22:2020,IEC62053-24:2020,IS14697,C l.6.0
132	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2, AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Vibration test (Sine and random)	IS13779:1999 A.1 to 5Cl.12.3.2(Withdrawn), IS16444 (Part 1): 2015 A.1&2 Cl.6.5, IS13779:2020 Cl.12.3.2,IEC62052-11:2020 Cl.5.2.1,IEC62053-21:2020,IEC 62053-22:2020,IEC62053-23:2020,IEC62053-24:



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133	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC direct connected Static prepayment Meters for Active Energy Class 1 and 2	Test of Accuracy of Crystal controlled clock with temperature	IS15884, 2010, Clause D- 3.2.3 IEC 62055 -31, 2005, Clause D-4.3.3
134	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Abnormal a.c.magnetic induction of external Origin (10 mTesla)	IS13779:1999 A.1 to 5Cl. Cl 12.11 (Withdrawn), CBIP-325:2015 Cl.5.6.2.4, (Part 1):2015A.1&2 Cl.6.12, IS13779:2020 Cl.12.11,
135	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5;	Verification of anti-tamper features	CBIP R.Publication : 325,2015Cl.6.7 IS14697,1999A.1to4(withdrawn),IS14697Cl.6.7,
136	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour	Test of immunity to conducted disturbances induced by Radio frequency field.	IEC62055 -31:2005Cl.7. 8.5, IEC62052-11:2020Cl.9.3.7,IEC6 2053-21:2020 Cl.7.10,IEC62053-22:2020 Cl.7.10,IEC62053-23:2020 Cl.7.10,IEC62053-24Cl.7.10
137	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Harmonic component in current and voltage	IEC62055 -31:2005,Cl.4.6.2 IEC62052-11,2020,Cl.9.4.2.3 IEC62053-21,2020,Cl.7.10 IEC62053-22,2020,Cl.7.10 IEC62053-23,2020,Cl.7.10 IEC62053-24,Cl.7.10,
138	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Odd harmonics in ac current circuit	IEC62055 -31:2005,Cl.4.6.2 IEC62052-11,2020,Cl.9.4.2.4 IEC62053-21,2020,Cl.7.10 IEC62053-22,2020,Cl.7.10 IEC62053-23,2020,Cl.7.10 IEC62053-24,Cl.7.10,
139	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2; AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Sub harmonics in ac current circuit/ Interharmonics in ac current circuit- Burst fired waveform test	IEC62055 -31:2005,Cl.4.6.2 IEC62052-11,2020,Cl.9.4.2.3 IEC62053-21,2020,Cl.7.10 IEC62053-22,2020,Cl.7.10 IEC62053-23,2020,Cl.7.10 IEC62053-24,Cl.7.10



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140	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC Static Transformer operated Watthour and VAR- Hour Meters,Class 0.2 and 0.5; AC direct connected Static prepayment Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2; AC.Static Transformer operated Watthour and VAR- hour SmartMeterClass 0.2S,0.5S	Continuous magnetic induction of external origin	IEC62055 -31:2005Cl.7.7,IEC62052-11:2020,Cl.9.3.12,IEC62053-21:2020 ,IEC62053-22:2020,IEC62053 23:2020,IEC62053-24:
141	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC. Static Direct Connected Watthour Smart Meter Class 1 and 2;	Impulse Voltage	IS13779:1999 A.1 to 5Cl.12.7.6.2 (Withdrawn), CBIP-325:2015 Cl.5.4.6.2, IS16444(Part 1):2015 A.1&2 Cl.6.10.6, IS13779:2020 Cl.12.7.6.2, IEC62052-31:2015 Cl.6.10.3.3, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020,IEC62053-2 3:2020, IEC62053-24
142	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Ambient temp influence	IS13779:1999 A.1 to 5Cl.12.12 (Withdrawn), CBIP-325:2015 Cl.5.6.3, IS16444(Part 1):2015 A.1&2 Cl.6.12, IS13779:2020 Cl.12.12, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020,IEC62053-2 3:2020, IEC62053-24,Cl.7.10:
143	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	DC & even harmonics in current circuit	IS13779:1999 A.1 to 5Cl.12.11 (Withdrawn), CBIP-325:2015 Cl.4.6.3, IS16444(Part 1):2015 A.1&2 Cl.6.12, IS13779:2020 Cl.12.11, IEC62052-11:2020,Cl.9.4.2.5, IEC62053-21:2020, IEC62053-22:2020,IEC62053-2 3:2020, IEC62053-24,Cl.7.10:
144	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Insulation test	IS13779:1999 A.1to5Cl.12.7.6.4 (Withdrawn), CBIP-325:2015 Cl.5.4.6.4, Cl.7.7, IS16444(Part 1):2015 A.1&2 Cl.6.10.6 , IS13779:2020 Cl.12.7.6.4,



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145	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Limits of error	IS13779:1999 A.1 to 5Cl.11.1 (Withdrawn), CBIP-325:2015 Cl.5.4.6.8, IS16444(Part 1):2015 A.1&2 Cl.6.12, IS 13779:2020 Cl.11.1, Cl.8.0 IEC62052-11:2020, IEC62053-21:2020, IEC62053-23:2020, IEC62053-24:
146	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Limits of error & Interpretation of test Results	IS13779:1999 A.1 to 5Cl.12.16 (Withdrawn), CBIP-325:2015 Cl.5.6.7, IS16444(Part 1):2015 A.1&2 IS13779:2020 Cl.12.16, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-23:2020, IEC62053-24
147	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Reversed phase sequence	IS13779:1999 A.1 to 5Cl.12.11 (Withdrawn), CBIP-325:2015 Cl.4.6.3, IS16444(Part 1):2015 A.1&2 Cl.6.12, IS13779:2020 Cl.12.11, IEC62052-11:2020, Cl.9.4.7, IEC62053-21:2020, IEC62053-22:2020, IEC62053-23:2020, IEC62053-24, Cl.7.10,;
148	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Test of immunity to earth/phase fault	IS13779:1999 A.1 to 5 Cl.12.8(Withdrawn), CBIP - 325:2015, IS16444 (Part 1):2015 A.2 Cl.6.10.7, IS13779 :2020 Cl.12.8, IEC62052-11: 2020 Cl.9.4.13, IEC62053-21:20 20 Cl.7.10, IEC62053-22:2020 Cl.7. 10, IEC62053-23:2020 Cl.7.10, IEC62053-24:2020 Cl.7.10,
149	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Test of Initial start -up of meter and Test of no load condition	IS13779:1999 A.1 to 5Cl.12.13 (Withdrawn), CBIP-325:2015 Cl.5.6.4, Cl.8.0, IS16444(Part 1) :2015 A.1& 2 Cl.6.12, IS13779:2020 Cl.12.13, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-23:2020, IEC62053-24, Cl.7.6:



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150	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Test of repeatability of Error	IS13779:1999 A.1 to 5CI.12.17 (Withdrawn), CBIP-325:2015 Cl.5.4.6.9, IS16444(Part 1):2015 A.1&2 IS13779:2020 Cl.12.17, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020,IEC62053-23:2020, IEC62053-24,Cl.7.8
151	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Test of starting condition	IS13779:1999 A.1 to 5CI.12.14 (Withdrawn), CBIP-325:2015 Cl.5.4.6.5, IS16444(Part 1):2015 A.1&2 Cl.6.12, IS13779:2020 Cl.12.14, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020,IEC62053-23:2020, IEC62053-24,CL.7.7:
152	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Voltage unbalance	IS13779:1999 A.1 to 5CI.12.11 (Withdrawn), CBIP-325:2015 , IS16444(Part 1):2015 A.1&2 Cl.6.12, IS13779:2020 Cl.12.11, IEC62052-11:2020 Cl.9.4.5, IEC62053-21:2020, IEC62053-22:2020,IEC62053-23:2020, IEC62053-24,Cl.7.10:
153	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Frequency variation	IS13779:1999 A.1 to 5CI.12.11 (Withdrawn), CBIP-325:2015 Cl.5.4.6.3, IS16444(Part 1):2015 A.1&2 Cl.6.12, IS13779:2020 Cl.12.11, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020,IEC62053-23:2020, IEC62053-24,Cl.7.10:
154	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Marking of meters Name Plate Connection diagrams and terminal Marking	IS13779:1999A.1to 5CI.7.0(Withdrawn), CBIP: 325:2015 Cl.4.2.2.11,IS16444(Part1):2015 A.1&2Cl. 6.8,IS13779:2020 Cl.6.0,IEC62052-11:2020,IEC62053-21:2020,IEC62053-22:2020,IEC62053-23:2020,IEC62053-24:



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155	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	AC voltage test	IS13779:1999 A.1 to 5CI.12.7.6.3 (Withdrawn), CBIP-325:2015 CI.5.4.6.3 IS16444(Part 1):2015 A.1&2 CI.6.10.6, IS13779:2020 CI.12.7.6.2, , IEC62052-31:2015CI.6.10.3.3, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020,IEC62053-23:2020, IEC62053-24
156	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Cold test	IS13779:1999 A.1 to 5CI.12.6.2(Withdrawn), CBIP - 325:2015 CI.5.3.2,IS16444 (Part 1): 2015 A.1,2CI.6.9, IS13779:2020 CI.12.6.2 IEC62052-11:2020 CI.8.3.4,IEC62053-21:2020 CI.8,IEC62053-22:2020 CI.8,IEC62053-23:2020 CI.8,IEC62053-24:2020 CI.8
157	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Damp heat cyclic test	IS13779:1999 A.1 to 5CI.12.6.3(Withdrawn),CBIP-325:2015 ,IS16444 (Part 1): 2015 A.1&2CI.6.9, IS13779:2020CI.12.6.3,IEC62052-11:2020 CI.8.3.5,IEC62053-21:2020 CI.8,IEC62053-22:2020 CI.8,IEC62053-23:2020 CI.8,IEC62053-24:
158	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Magnetic induction of external origin (0.5mT)	IS13779:1999 A.1 to 5CI. 12.11 (Withdrawn), CBIP-325:2015 CI.5.6.2.3, IS16444(Part 1):2015A.1&2 CI.6.12, IS13779:2020 CI.12.11, , IEC62052-11:2020, CI.9.3.12, IEC62053-21:2020, IEC62053-22:2020,IEC62053-23:2020, IEC62053-24



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159	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Operation of an Accessories	IS13779:1999 A.1 to 5Cl.12.11(Withdrawn), CBIP - 325:2015Cl.4.6.2,IS16444 (Part 1):2015 A.1&2Cl.6.12,IS13779:2020 Cl.12.11,IEC 62052-11, 2020,IEC 62053-21:2020 Clause. 8.2 IEC 62053-22:2020,IEC 62053-23:2020, IEC 62053-24:
160	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Power Consumption	IS13779:1999A.1to5Cl.12.7.1(Withdrawn), CBIP-325:2015 Cl.5.4.1,IS16444(Part1): 2015 A.1 & 2Cl.6.10.1,IS13779:2020Cl.12.7.1,IEC62052-11:2020Cl.4.4,IEC62053-21:2020,IEC62053-22:2020,IEC62053-23:2020,IEC62053-24:2020 Cl.4.4,
161	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Protection against penetration of dust and water	IS13779:1999 A.1 to 5Cl.12.5(Withdrawn) ,CBIP - 325:2015 Cl. 5.2.5, IS16444 (Part 1): 2015 A.1&2 Cl.6.5,IS13779:2020 Cl.12.5,IEC62052-31,2015Cl.11 ,IEC62052-11:2020,IEC62053-21:2020,IEC62053-22:2020,IEC62053-23:2020,IEC62053-24
162	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Radio Interference Measurement- Conducted emission-(0.15MHz to 30MHz)	IS13779:1999A.1to5Cl.12.9(Wit hdrawn), CBIP -325:2015Cl.5.5.5,IS16444(Part 1): 2015A.1&2Cl.6.11,IS13779:2020 Cl.12.9.6,
163	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Shock test	IS13779:1999 A.1 to 5Cl.12.3.1(Withdrawn), CBIP-325:2015 Cl.5.2.2, ,IS16444(Part 1): 2015 A.1 and 2 Cl.6.5,IS13779:2020 Cl.12.3.1,IEC62052-11:2020 Cl.5.2.2,IEC62053-21:2020,IEC 62053-22:2020,IEC62053-23:2020,IEC62053-24



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164	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Spring Hammer Test/ mechanical test of meter case	IS13779:1999 A.1 to 5CI.12.3.3(Withdrawn), CBIP-325:2015 Cl.5.2.1,IS16444 (Part 1): 2015 A.1&2 Cl.6.5, IS13779:2020 Cl.12.3.3,IEC62052-31:2015Cl. 8.2,IEC62052-11:2020,IEC62053-21:2020,IEC62053-22:2020,IEC62053-23:2020,IEC62053-24 :
165	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Test of resistance to heat & fire	IS13779:1999 A.1 to 5CI.12.4(Withdrawn), CBIP -325:2015 Cl.5.2.4, IS16444 (Part 1): 2015A.1&2 Cl.6.5,IS13779:2020 Cl.12.4 , IEC62052-31:2015Cl.9.3.2.1,IE C62052-11:2020, IEC62053-21:2020,IEC62053-2 2:2020,IEC62053-23:2020,IEC6 2053-24
166	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Waveform 10% of 3rd harmonic in the current	IS13779:1999 A.1 to 5CI.12.11 (Withdrawn), CBIP-325:2015 Cl.4.6.3, IS16444(Part 1):2015 A.1&2 Cl.6.12, IS13779:2020 Cl.12.11,
167	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2; AC.Static Transformer operated Watthour	Continuous abnormal dc. magnetic Induction of external Origin (200/270 mTesla)	IS13779:1999 A.1 to 5CI. Cl 12.11 (Withdrawn), CBIP-325:2015 Cl.5.6.2.2, , IS16444(Part 1):2015A.1&2 Cl.6.12, IS13779:2020 Cl.12.11,
168	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; Meters for Active Energy Class 1 and 2; AC.Static Direct Connected Watthour Smart Meter Class 1 and 2;	Meter constant	IS13779:1999 A.1 to 5CI.12.15 (Withdrawn), CBIP-325:2015 Cl.5.4.6.6, IS16444(Part 1):2015 A.1&2 IS13779:2020 Cl.12.15, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020,IEC62053-2 3:2020, IEC62053-24,Cl.7.4



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169	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Dry heat test	IS13779:1999 A.1 to 5 Cl.12.6.1(Withdrawn), CBIP-325:2015Cl.5.3.1,IS16444 (Part 1): 2015 A.1&2Cl.6.9, IS13779:2020 Cl.12.6.1 IEC62052-11:2020 Cl.8.3.3,IEC62053-21:2020 Cl.8 IEC62053-22:2020 Cl.8,IEC62053-23:2020 Cl.8,IEC62053-24:2020 Cl.8,
170	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	General and constructional requirements: General, Meter case, Window,Terminals, Terminal Block and Protective earth Terminal, Terminal Cover,Clearances and Creepage distances, Insulating encased meter, Display of measured values, Output Device	IS13779:1999 A.1to 5 Cl.6.0 (Withdrawn), CBIP - 325:2015 Cl.4.2.2,IS16444 (Part 1): 2015 A.1&2 Cl.6.0,IS13779:2020 Cl.6.0, IEC62052-11:2020Cl.5.0,IEC62053-21:2020,IEC62053-22:2020,IEC62053-23:2020,IEC62053-24:
171	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2;	Electrostatic Discharge Test	IS13779:1999 A.1 to 5Cl.12.9.2(Withdrawn), CBIP - 325:2015Cl.5.5.2,IS13779:2020 Cl.12.9.2,IEC62052-11:2020Cl.9.3.3,IEC62053-21:2020,IEC62053-22:2020,IEC62053-23:2020, IEC62053-24
172	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2;	Fast transient burst test	IS13779:1999A.1to5Cl.12.9.4(Withdrawn), ,CBIP-325:2015 Cl.5.5.3,IS13779:2020Cl.12.9.4 ,IEC62052-11:2020 Cl.9.3.6,IEC62053-21:2020 Cl.7.10,IEC62053-22:2020 Cl.7.10,IEC62053-23:2020 Cl.7.10,IEC62053-24:2020 Cl.7.10,
173	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2;	Influence of heating	IS13779:1999 A.1 to 5 Cl.12.7.5(Withdrawn), CBIP - 325:2015 Cl.5.4.5, ,IS13779:2020 Cl.12.7.5,IEC62052-31:2015Cl.10.4,IEC62052-11:2020,IEC62053-21:2020,IEC62053-22:2020, IEC62053-23:2020,IEC62053-24:



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174	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2;	Influence of self heating	IS13779:1999A.1to 5Cl.12.7.4(Withdrawn), CBIP-325:2015Cl.5.4.4,IS13779:2020,Cl.12.7.4,IEC62052-11:2020 Cl.9.4.11,IEC62053-21, IEC62053-22, IEC62053-23, IEC62053-24:2020 Cl.7.10,
175	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2;	Influence of supply Voltage	IS13779:1999 A1 to5Cl.12.7.2(Withdrawn), CBIP-325:2015 Cl.5.4.2, ,IS13779:2020 Cl.12.7.2,IEC62052-11:2020 Cl.9.3.2,IEC62053-21:2020Cl.7.10,IEC62053-22:2020,Cl.7.10,I EC62053-23:2020 Cl.7.10,IEC62053-24:2020 Cl.7.10
176	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2;	Radio Interference Measurement- Radiated emission-(30MHz to 300MHz)	IS13779:1999A.1to5Cl.12.9(Wit hdrawn), CBIP-325:2015Cl.5.5.5, IS13779:2020Cl.12.9.6,
177	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2;	Short time over current Test	IS13779:1999A.1to5Cl.12.7.3(Withdrawn), CBIP-325:2015Cl.5.4.3, ,IS13779:2020 Cl.12.7.3,IEC62052-11:2020Cl. 9.4.10,IEC62053-21, IEC62053-22, IEC62053-23, IEC62053-24:2020Cl.7.10,
178	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2;	Surge immunity test	IS13779:2020 Cl.12.9.5,IEC62052-11:2020 Cl.9.3.9,IEC62053-21:2020,IEC 62053-22:2020,IEC62053-23:2 020,IEC62053-24:2020,IEC620 52-31
179	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2;	Test of Immunity to electromagnetic HF/RF Fields.	IS13779:1999 A.1 to 5 Cl.12.9.3(Withdrawn),, IS15884:2010 Cl.5.5.3,CBIP - 325:2015 Cl.5.5.3,IS16444 (Part 1): 2015 A.1 and 2 Cl.6.11,IS13779



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180	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC Static Watthour Meter Class 1 and 2; AC Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC direct connected Static prepayment Meters for Active Energy Class 1 and 2 AC.Static Direct Connected Watthour Smart Meter Class 1 and 2; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S;	Voltage variation	IS13779:1999 A.1 to 5Cl.12.11 (Withdrawn), CBIP-325:2015 Cl.4.6.3, IS16444(Part 1):2015 A.1&2 Cl.6.12, IS13779:2020 Cl.12.11, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020,IEC62053-23:2020, IEC62053-24,Cl.7.10
181	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Smart meter Functional Requirement	IS16444 (Part 1): 2015 A.1 and 2 Cl.11.0
182	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Test for Data Exchange Protocol	IS16444 (Part 1): 2015 A.1, 2 Cl.10.5 IS15959 (Part 1): 2011 with Am. 1 July 2014, Am. 2 March 2015, Am. 3 January 2016 and Am. 4 April,2017. Amendment No. 5 Feb.2021 IS15959 (Part 2): 2016 with Am.1and 2, April 2017
183	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC.Static Direct Connected Watthour Smart MeterClass 1 and 2;	Test for Smart Meter Communicability (Equipment Type Approval (ETA) of modules for WAN/NAN/HD shall be approved by designated agency authorized by DoT)	IS16444 (Part 1): 2015 A.1 and 2 Cl.10.6.2 IS15959 (Part 1): 2011 with Amendment No. 1 July 2014, Amendment No. 2 March 2015, Amendment No. 3 January 2016, Amendment No.4April,2017 and Amendment No. 5 Feb.2021 IS15959 (Part 2): 2016 with A.1, April 2017,A.2,May
184	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S,0.5S and 1.0S	Test for smart meter communicability	IS16444 (Part 2) ,A.1 , Cl.9.5.2
185	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Smart meter Functional Requirement	IS16444 (Part 2),2017 A.1,Cl.10.0
186	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Test for Data Exchange Protocol	IS16444 (Part 2) : 2016 A.1 Cl.9.4 IS15959 (Part 1): 2011 with Am. 1 July 2014, Am. 2 March 2015, Am. 3 January 2016 and Am. 4 April,2017. Amendment No. 5 Feb.2021 IS15959 (Part 3):



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187	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC.Static Transformer operated Watthour and VAR - hour Smart MeterClass 0.2S,0.5S and 1.0S	Test for Smart Meter Communicability (Equipment Type Approval (ETA) of modules for WAN/NAN/HD shall be approved by designated agency authorized by DoT)	IS16444 (Part 2) : 2016 A.1 Cl.9.6.2 IS15959 (Part 1): 2011 with Amendment No. 1 July 2014, Amendment No. 2 March 2015, Amendment No. 3 January 2016, Amendment No.4April,2017 and Amendment No. 5 Feb.2021, IS15959 (Part 3)
188	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter	Conformance test	S 15959 (Part 1): 2011 / IS / IEC 62056 (DLMS / COSEM)-2005:
189	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter	Conformance test	IS / IEC 62056 (DLMS / COSEM)-2005:
190	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter -Smart Meter Category D1 & D2	17.0 Event code and Event logging :(a) Indian Event Reference Table -Voltage Related(b)Indian Event Reference Table -Current Related(c) Indian Event Reference Table -Power Related(d) Indian Event Reference Table -Transaction Related(e) Indian Event Reference Table -Other(f) Indian Event Reference Table - Non Roll Over(g) Indian Event Reference Table -Control18.0 Selective access by Entry for Event Log Profile	Cl No 4 to 24 of IS 15959 (Part 2) -2016



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191	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter -Static Energy Meter Category A, B, C1, C2 & C3	2.11 Event code and Event logging :2.11.1 Indian Event Reference Table -Voltage Related2.11.2 Indian Event Reference Table -Current Related2.11.3 Indian Event Reference Table -Power Related2.11.4 Indian Event Reference Table -Transaction Related2.11.5 Indian Event Reference Table -Other2.11.6 Indian Event Reference Table - Non Roll Over2.11.7 Indian Event Reference Table - Control2.12 Selective access by Entry for Event Log Profile	CI No 4 to 14 Annex A to L of IS 15959 (Part 1) -2011
192	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter -Static Energy Meter Category A, B, C1, C2 & C3	2.9.2 Block load profile parameters2.9.3 Selective access by Range for Block load profile 2.9.4 Daily load profile parameters2.9.5 Selective access by Range for Daily load profile2.9.6 Billing profile parameters2.9.7 Selective access by Entry for Billing profile2.10 General Purpose parameters :2.10.1 Name Plate Details2.10.2 Programmable Parameters	CI No 4 to 14 Annex A to L of IS 15959 (Part 1)
193	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter -Static Energy Meter Category A, B, C1, C2 & C3	Compliance test:1.0 Conformance to DLMS / COSEM (IEC 62056)2.0 Parameter verification:2.1 SNRM/UA2.2 Object list download2.3 Association properties2.4 Simultaneous operation2.5 Security:2.5.1 Lowest LevelSecurity Secret 2.5.2 Low Level Security (LLS) Secret2.5.3 High Level Security (HLS) Secret2.6 ToU setting2.7 Billing Period2.8 Billing Period Counter2.9 Parameter list:2.9.1 (a) Instantaneous Parameters2.9.1 (b) Snap Shot of Instantaneous Parameters2.9.1 (c) Scaler Profile	CI No 4 to 14 Annex A to L of IS 15959 (Part 1) -2011:



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194	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter-Smart Meter Category D1 & D2	10.0 Daily load profile parameters 11.0 Selective access by Range for Daily load profile 12.0 ToU setting 13.0 Billing profile parameters 14.0 Billing Period 15.0 Billing Period Counter 16.0 Selective access by Entry for Billing profile	CI No 4 to 24 of IS 15959 (Part 2) -2016
195	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter-Smart Meter Category D1 & D2	19.0 General Purpose parameters : (a) Name Plate Details (b) Programmable Parameters 20.0 Test for Smart Meter Functional Requirements 21.0 Tests for Smart Meter communicability (a) Association (b) Data read (c) Profile read (d) Selective Programmability (e) Reporting of events (f) Connect/ Disconnect (g) Firmware upgrade	CI No 4 to 24 of IS 15959 (Part 2) -2016
196	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter-Smart Meter Category D1 & D2	Compliance test: 1.0 Conformance to DLMS/COSEM (IEC 62056) 2.0 Parameter verification 3.0 SNRM/UA 4.0 Object list download 5.0 Association properties 6.0 Security: (a) Lowest Level Security Secret (b) Low Level Security (LLS) Secret (c) High Level Security (HLS) Secret Parameter list: 7.0 (a) Instantaneous Parameters 7.0 (b) Snap Shot of Instantaneous Parameters 7.0 (c) Scaler Profile 8.0 Block load profile parameters 9.0 Selective access by Range for Block load profile 10.0 Daily load profile	CI No 4 to 24 of IS 15959 (Part 2) -2016
197	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter-Smart Meter Category D3 & D4	10.0 Daily load profile parameters 11.0 Selective access by Range for Daily load profile 12.0 ToU setting 13.0 Billing profile parameters 14.0 Billing Period 15.0 Billing Period Counter 16.0 Selective access by Entry for Billing profile	CI No 4 to 28 of IS 15959 (Part 3) -2017



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198	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter-Smart Meter Category D3 & D4	17.0 Event code and Event logging :(a) Indian Event Reference Table " Voltage Related(b)Indian Event Reference Table " Current Related(c) Indian Event Reference Table " Power Related(d) Indian Event Reference Table " Transaction Related(e) Indian Event Reference Table " Other(f) Indian Event Reference Table " Non Roll Over18.0 Selective access by Entry for Event Log Profile	CI No 4 to 28 of IS 15959 (Part 3) -2017:
199	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter-Smart Meter Category D3 & D4	19.0 General Purpose parameters :(a) Name Plate Details(b) Programmable Parameters20.0 Tests for Smart Meter Functional Requirements21.0 Tests for Smart Meter communicability(a) Association(b) Data read(c) Profile read(d)Selective Programmability(e) Reporting of events (g) Firmware upgrade	CI No 4 to 28 of IS 15959 (Part 3) -2017
200	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Data Exchange for Electricity Meter-Smart Meter Category D3 & D4	Compliance test:1.0 Conformance to DLMS/COSEM (IEC 62056)2.0 Parameter verification:3.0 SNRM/UA4.0 Object list download5.0 Association properties6.0 Security:(a) Lowest LevelSecurity Secret (b) Low Level Security (LLS) Secret(c) High Level Security (HLS) SecretParameter list:7.0 (a) Instantaneous Parameters7.0 (b) Snap Shot of Instantaneous Parameters7.0 (c) Scaler Profile8.0 Block load profile parameters9.0 Selective access by Range for Block load profile10.0 Daily load profile	CI No 4 to 28 of IS 15959 (Part 3) -2017:



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201	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	Static Transformer operated Watthour and VAR- Hour Meters, Class 0.2 and 0.5; AC.Static Transformer operated Watthour and VAR - hour Smart Meter Class 0.2S, 0.5S and 1.0S	Ambient temp. influence	IS14697: 1999 A.1 to 4 Cl.12.11 (Withdrawn), CBIP-325:2015 Cl.5.6.3, IS16444(Part 2):2017A.1Cl.6.12, IS14697:2021 Cl.12.11, IEC62052-11:2020, IEC62053-21:2020, IEC62053-22:2020, IEC62053-24, Cl.7.10:
202	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Chopped Lightning Impulse Test on Primary Winding	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016, IS: 16227 Part-4 2015, IEC: 61869-1 2007, IEC: 61869-2, 2012, IEC: 61869-4, 2013; IEEE C57.13, 2008; IEEE C57.13.5
203	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Composite Error	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016, IS: 16227 Part-4 2015, IEC: 61869-1 2007, IEC: 61869-2, 2012, IEC: 61869-4, 2013; IEEE C57.13, 2008; IEEE C57.13.5
204	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Determination of Errors and Other characteristics	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016, IS: 16227 Part-4 2015, IEC: 61869-1 2007, IEC: 61869-2, 2012, IEC: 61869-4, 2013; IEEE C57.13, 2008; IEEE C57.13.5
205	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	High voltage power frequency test (dry and wet).	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016, IS: 16227 Part-4 2015, IEC: 61869-1 2007, IEC: 61869-2, 2012, IEC: 61869-4, 2013; IEEE C57.13, 2008; IEEE C57.13.5
206	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Instrument Security	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016, IS: 16227 Part-4 2015, IEC: 61869-1 2007, IEC: 61869-2, 2012, IEC: 61869-4, 2013; IEEE C57.13, 2008; IEEE C57.13.5



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207	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Over Voltage Interturn test	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016,IS: 16227 Part 2 2016, IS: 16227 Part-4 2015,IEC: 61869-1 2007,IEC: 61869-2, 2012,IEC: 61869-4, 2013; IEEE C57.13, 2008;IEEE C57.13.5
208	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Partial Discharge	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016,IS: 16227 Part 2 2016, IS: 16227 Part-4 2015,IEC: 61869-1 2007,IEC: 61869-2, 2012,IEC: 61869-4, 2013; IEEE C57.13, 2008;IEEE C57.13.5
209	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Secondary Winding resistance, knee point voltage and excitation current measurement test	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016,IS: 16227 Part 2 2016, IS: 16227 Part-4 2015,IEC: 61869-1 2007,IEC: 61869-2, 2012,IEC: 61869-4, 2013; IEEE C57.13, 2008;IEEE C57.13.5
210	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Switching Impulse Voltage Withstand on Primary Winding (Dry & wet)	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016,IS: 16227 Part 2 2016, IS: 16227 Part-4 2015,IEC: 61869-1 2007,IEC: 61869-2, 2012,IEC: 61869-4, 2013; IEEE C57.13, 2008;IEEE C57.13.5
211	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Terminal marking And Polarity	IS:2705 (Part -1)1992 , IS: 16227 Part-1 2016, IS: 16227 Part 2 2016, IS: 16227 Part-4 2015,IEC: 61869-1 2007,IEC: 61869-2, 2012,IEC: 61869-4, 2013; IEEE C57.13, 2008;IEEE C57.13.5
212	ELECTRICAL- INDUCTORS & TRANSFORMERS	current Transformer	Turn ratio	IS:2705 (Part -1) 1992, IS: 16227 Part-1 2016, IS: 16227 Part 2 2016, IS: 16227 Part-4 2015, IEC: 61869-1 2007, IEC: 61869-2, 2012, IEC: 61869-4, 2013; IEEE C57.13, 2008; IEEE C57.13.5



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213	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Verification of the degree of Protection by enclosures.(Verification of IP coding and Mechanical impact test)	IS:2705 (Part -1)1992, IS/IEC 60529-2001, IEC 60529-2013 IS: 16227 Part-1 2016,IS: 16227: Part 2 2016, IS: 16227 Part-4 2015,IEC: 61869-1 2007,IEC: 61869-2, 2012,IEC: 61869-4, 2013; IEEE C57.13, 2008;IEEE C57.13.5
214	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current transformers	Enclosure tightness test at the ambient temperature (liquid filled)	IS: 16227 Part-1 2016, IS: 16227: Part 2 2016, IS: 16227 Part-4 2015, IEC: 61869-1 2007, IEC: 61869-2, 2012, IEC: 61869-4, 2013; IEEE C57.13, 2008; IEEE C57.13.5
215	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current transformers	Lightning Impulse Voltage Withstand	IS:2705 (Part -1)1992, IS: 16227 Part-1 2016,IS: 16227: Part 2 2016, IS: 16227 Part-4 2015,IEC: 61869-1 2007,IEC: 61869-2, 2012,IEC: 61869-4, 2013; IEEE C57.13, 2008;IEEE C57.13.5
216	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformers	Short Time Current Test	IS:2705 (Part -1) 1992, IS:16227(Part -1)-2016/IEC:61869-1:2007, IS:16227(Part -2)-2016/IEC:61869-2:2012, IS:16227(Part -4)-2015/IEC:61869-4:2013, IEC: 61869-1, 2007; IEC: 61869-2, 2012; IEC: 61869-4, 2013; IEEE C57.13:2016, IEEE C57.13.5
217	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current transformers	Temperature Rise	IS:2705 (Part -1)1992,IS: 16227 Part-1 2016,IS: 16227: Part 2 2016, IS: 16227 Part-4 2015,IEC: 61869-1 2007,IEC: 61869-2, 2012,IEC: 61869-4, 2013; IEEE C57.13, 2008;IEEE C57.13.5



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218	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current transformers	Transient Response	IS:2705 (Part -1) 1992, IS:16227(Part -1)-2016/IEC:61869-1:2007, IS:16227(Part -2)-2016/IEC:61869-2:2012, IS:16227(Part -4)-2015/IEC:61869-4:2013, IEC: 61869-1, 2007; IEC: 61869-2, 2012; IEC: 61869-4, 2013; IEEE C57.13:2016, IEEE C57.13.5
219	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry type transformers	Measurement of voltage ratio and check of phase displacement	IS 2026-11:2021;IS:11171:1985+A1.2015; IS:11333:1985; IEC 60076-11
220	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry type transformer	Lightning impulse voltage withstand test	IS 2026-11: 2021, IS 11171 : 1985 IS 11333 : 1985 IEC 60076-11: 2018
221	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry Type Transformers	Applied voltage test	IS:11171:1985+A1.2015; IS 2026- 11:2021 ,IS:11333:1985;IEC 60076-11
222	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry type transformers	Chopped wave lightning impulse test	IS-2026-11, 2021, IEC-60076-11, 2018
223	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry type Transformers	Induced over voltage withstand test	IS 2026-11:2021; IS:11171:1985+A1.2015; IS:11333:1985;IEC 60076-11
224	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry type Transformers	Measurement of no load current harmonics	IS 2026-11:2021,IS:11171:1985+A1.2015; IS:11333:1985;EC:60076-11
225	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry type Transformers	Measurement of No-load loss and current	IS 2026-11:2021;IS:11171:1985+A1.2015; IS:11333:1985; IEC 60076-11
226	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry type Transformers	Measurement of short circuit impedance and load loss	IS 2026-11:2021;IS:11171:1985+A1.2015; IS:11333:1985; IEC 60076-11
227	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry type transformers	Measurement of sound level	IS 2026-11:2021; IS:11171:1985+A1.2015; IS:11333:1985;IEC 60076-11



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228	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry Type transformers	Measurement of winding resistance	IS 2026-11:2021;IS:11171:1985+A1.2015; IS:11333:1985; IEC 60076-11
229	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry Type Transformers	Short circuit test	; IS 2026-11:2021;IS:11171:1985+A1.2015; IS:11333:1985;IEC:60076-11
230	ELECTRICAL- INDUCTORS & TRANSFORMERS	Dry type transformers	Temperature rise test	IS 2026-11: 2021, IS 11171 : 1985 IS 11333 : 1985 IEC 60076-11: 2018
231	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformer , Distribution transformers	Paint Adhesion	IS:1180 (Part-1), 2014;+ Amd No 1:2016+Amd no. 2:2017+Amd no. 3:2019+Amd. No. 4:2021, IS 1180-3:
232	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformer , Distribution transformers	Measurement of Impedance Voltage/Short Circuit Impedance And Load Loss	IS:2026-1:2011; IS:2026-5:2011;IS:1180-1:2014 +A1.2014+A2.2017+A3.2019 +A4.2021; IS 1180-3:2021; IEC:60076-1:2011; IEC:60076-5:2006; IEC:60076-7:2018; IEC:60076-8:1997; IEEE C57.12.00:2015; IEEE C57.12.90:2015 COR.1:2017; IEEE C57.15:2017, IEEE C57.12.20
233	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformer & Distribution transformers	Temperature rise test	IS: 2026 (Part-1), 2011; IS: 2026 (Part-2), 2010; IS:1180 (Part-1), 2014 + Amd No.1 2016 + Amd No.2 2017+Amd No.3 2019;IS:1180 (Part-3): 2021; IEC 60076-1, 2011; IEC 60076-2, 2011; IEC 60076-8
234	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformer , Distribution transformers	Oil Leakage	IS:1180 (Part-1), 2014 + Amd No.1 2016 + Amd No.2 2017;+Amd No. 3+A4.2021; IS 1180-3:



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235	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformer and Distribution transformers.	Switching Impulse Voltage Withstand	IS: 2026 (Part-1), 2011, IS: 2026 (Part-3), 2018; IS: 2026 (Part-5), 2011, IS:1180 (Part-1), 2014;+ Amd No.1 2016+ Amd No.2 2017+Amd No.3 2019,IS:1180 (Part-3): 2021; IEC 60076-1: 2011; IEC 60076-3:2013/AMD1 2018; IEC 60076-4: 2002; IEC 60076-8, 1997; IEEE C 57.12.90, 2015; IEEE C57.12.20-2017; IEEE C57.12.00
236	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformer and Inductors, Distribution transformers	Thermal ability to withstand short circuit	IS:2026-1:2011; IS:2026-5:2011; IS:1180-1:2014+A1.2014+A2.2 017+A3.2019+A4.2021; IS 1180-3:2021; IEC 60076-1:2011; IEC:60076-5:2006; IEEE C57.12.00:2015; IEEE C57.12.90:2015 COR.1:2017; IEEE C57.15:2017, IEEE C57.12.20
237	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers , Distribution transformers	Measurement of no load current harmonics	IS: 2026 (Part-1), 2011, IEC 60076-1
238	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers , Distribution Transformers	Acoustic Noise Level/ Sound Level determination	IS:2026-1:2011; IS:2026-10:2009, IS:1180-1:2014+A1.2014+A2.2 017+A3.2019+A4.2021; IS 1180-3:2021; IS 2026-11:2021; IS:11333:1985; IEC:60076-1:2011; IEC:60076-10:2016; IEC:60076-10-1:2016+A1
239	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers , Distribution transformers.	Ability to withstand the dynamic effects of short circuit (Short Circuit Test)	IS:2026-1:2011; IS:2026-5:2011; IS:1180-1:2014+A1.2014+A2.2 017+A3.2019+A4.2021; IS 1180-3:2021; IEC:60076-1:2011; IEC:60076-5:2006; IEC:60076-8:1997; IEEE C57.12.00:2015; IEEE C57.12.90:2015 COR.1:2017; IEEE C57.15:2017, IEEE C57.12.20



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240	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers , Distribution transformers.	Pressure Test	IS:1180 (Part-1), 2014;+ Amd No.1 2016+Amd No.2:2017+amd no.3:2019+Amd.4 2021, IS 1180-3:
241	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers , Distribution transformers	Applied voltage test	IS:2026-1:2011; IS:2026-3:2018/IEC 60076-3:2013; IS:2026-5:2011; IS:1180-1:2014+A1.2014+A2.2 017+A3.2019+A4.2021; IS 1180-3:2021; IEC 60076-1:2011; IEC:60076-3:2013+A1.2018; IEC:60076-4:2002; IEC:60076-5:2006; IEC:60076-7:2018; IEC:60076-8:1997; IEEE C57.12.00:2015; IEEE C57.12.90:2015 COR.1:2017; IEEE C57.15:2017, IEEE C57.12.20
242	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers, Distribution transformers	Measurement of No-Load Loss and Current	IS:2026-1:2011; IS:2026-3:2018/IEC 60076-3:2013; IS:2026-5:2011; IS:1180-1:2014+A1.2014+A2.2 017+A3.2019+A4.2021; IS 1180-3:2021;IEC:60076-1:2011 ; IEC:60076-3:2013+A1.2018; IEC:60076-5:2006; IEC:60076-7:2018; IEC:60076-8:1997; IEEE C57.12.00:2015; IEEE C57.12.90:2015 COR.1:2017; IEEE C57.15:2017, IEEE C57.12.20



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243	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers, Distribution transformers	Induced over voltage Withstand test	IS:2026-1:2011; IS:2026-3:2018/IEC 60076-3:2013; IS:2026-5:2011; IS:1180-1:2014+A1.2014+A2.2 017+A3.2019+A4.2021; IS 1180-3:2021; IEC:60076-1:2011; IEC:60076-3:2013+A1.2018; IEC:60076-4:2002; IEC:60076-5:2006; IEC:60076-7:2018; IEC:60076-8:1997; IEEE C57.12.00:2015; IEEE C57.12.90:2015 COR.1:2017; IEEE C57.15:2017, IEEE C57.12.20
244	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers, Distribution transformers	Measurement of voltage ratio and check of voltage vector relationship	IS:2026-1:2011; IS:2026-5:2011 ; IS:1180-1:2014+A1.2014+A2.2 017+A3.2019+A4.2021; IS 1180-3:2021; IEC:60076-1:2011 ; IEC:60076-5:2006; IEC:60076-7:2018; IEC:60076-8:1997; IEEE C57.12.00:2015; IEEE C57.12.90:2015 COR.1:2017; IEEE C57.15:2017, IEEE C57.12.20
245	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers, Distribution transformers	Measurement of Insulation Resistance	IS:2026-1:2011; IS:2026-3:2018/IEC 60076-3:2013; IS:2026-5:2011; IS:1180-1:2014+A1.2014+A2.2 017+A3.2019+A4.2021; IS 1180-3:2021; IEC:60076-1:2011; IEC:60076-3:2013+A1.2018; IEC:60076-5:2006; IEC:60076-7:2018; IEC:60076-8:1997; IEEE C57.12.00:2015; IEEE C57.12.90:2015 COR.1:2017; IEEE C57.15:2017, IEEE C57.12.20



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246	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers, Distribution transformers	Measurement of Winding Resistance	IS:2026-1:2011; IS:2026-5:2011; IS1180-1:2014+A1.2014+A2.2017+A3.2019+A4.2021; IS:1180-3:2021, IEC:60076-1:2011; IEC:60076-5:2006; IEC:60076-7:2018; IEC:60076-8:1997; IEEE C57.12.00:2015; IEEE C57.12.90:2015 COR.1:2017; IEEE C57.15:2017, IEEE C57.12.20
247	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformer and Distribution Transformers	Chopped Wave Lightning Impulse test	IS: 2026 (Part-1), 2011, IS: 2026 (Part-3), 2018; IS: 2026 (Part-5), 2011 ; IS:1180 (Part-1), 2014;+ Amd No.1 2016+ Amd No.2 2017+ Amd No.3 2019;IS:1180 (Part-3): 2021; IEC 60076-1, 2011; IEC 60076-3, 2013/AMD1 2018; IEC 60076-4, 2002; IEC 60076-8, 1997, IEEE C 57.12.00, 2015; IEEE C57.12.20
248	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers , Distribution transformers	Zero Sequence impedance for three phase transformer.	IS: 2026 (Part-1), 2011; IEC 60076-1
249	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto transformers , Distribution transformers	Vacuum Test	IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017;+Amd No. 3:2019;+Amd No.4:2021,IS:1180 (Part-3)
250	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Auto Transformers, Distribution Transformers	Lightning Impulse voltage withstand test	IS: 2026 (Part-1), 2011;IS: 2026 (Part-3), 2018; IS: 2026 (Part-5), 2011; IS:1180 (Part-1), 2014;+ Amd No.1 2016+ Amd No.2 2017+ Amd No.3 2019; IEC 60076-1, 2011; IEC 60076-3, 2013/AMD1 2018; IEC 60076-4, 2002; IEC 60076-8, 1997, 2018; IEEE C 57.12.00, 2015; IEEE C57.12.20, 2017
251	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactor	Winding Resistance	IS:2026-1:2011; IS:2026-6:2017/IEC 60076-6:2007; IEC:60076-1:2011; IEC:60076-6:2007; IEEE Std C57.32



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252	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Applied voltage test	IS:2026-1:2011; IS:2026-6:2017/IEC 60076-6:2007; IEC:60076-1:2011; IEC:60076-6:2007; IEEE Std C57.32
253	ELECTRICAL- INDUCTORS & TRANSFORMERS	REACTORS	Chopped wave lightning impulse test	IS 2026-6: 2017, IEC 60076-6:2007
254	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Impedance Voltage/Short Circuit Impedance (Principal Tapping) and Load Loss	IS:2026-1:2011; IS:2026-6:2017/IEC 60076-6:2007; IEC:60076-1:2011; IEC:60076-6:2007; IEEE Std C57.32
255	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Induced voltage withstand test	IS:2026-1:2011; IS:2026-6:2017/IEC 60076-6:2007; IEC:60076-1:2011; IEC:60076-6:2007; IEEE Std C57.32
256	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Insulation Resistance	IS:2026-1:2011; IS:2026-6:2017/IEC 60076-6:2007; IEC:60076-1:2011; IEC:60076-6:2007; IEEE Std C57.32
257	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Lightning Impulse Voltage Withstand	IS: 2026 (Part-1), 2011, IS 2026:part-6:2017 ; IEC 60076-1.; 2011, IEC:60076-6, 2007
258	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Measurement of voltage ration and check of phase displacement	IS:2026-1:2011; IS:2026-6:2017/IEC 60076-6:2007; IEC:60076-1:2011; IEC:60076-6:2007; IEEE Std C57.32
259	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Short Time Withstand Current, Ability to withstand rated thermal and rated mechanical short-circuit current, Rated Short-circuit current test	IS:2026-1:2011; IS:2026-6:2017/IEC 60076-6:2007; IEC:60076-1:2011; IEC:60076-6:2007; IEEE Std C57.32
260	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Switching impulse Voltage Withstand test	IS 2026-6: 2017, IEC 60076-6:2007



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261	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Temperature Rise Test	IS: 2026 (Part-1), 2011, IS 2026:part-6:2017 ; IEC 60076-1,: 2011, IEC:60076-6
262	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors, current limiting reactors, Earthing transformers	Demonstration of ability to withstand rated short-time neutral current-special test (Short Circuit Withstand Test)	IS:2026-1:2011; IS:2026-6:2017/IEC 60076-6:2007; IEC:60076-6
263	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transformers	Ability to withstand the dynamic effects of short circuit (Short Circuit Test)	IEC 60310
264	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transformers	Applied voltage test	IEC 60310
265	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transformers	Induced voltage withstand test	IEC 60310
266	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction transformers	Insulation resistance	IEC 60310
267	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transformers	Lightning impulse voltage withstand test	IEC-60310, 2016
268	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transformers	Measurement of no-load loss & current	IEC 60310
269	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transformers	Measurement of short circuit impedance and load loss	IEC 60310
270	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction transformers	Measurement of sound level	IEC 60310
271	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transformers	Measurement of voltage ratio & check of phase displacement	IEC 60310
272	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transformers	Measurement of winding resistance	IEC 60310
273	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transformers	Permissible Flux Density & Over fluxing	IEC 60310
274	ELECTRICAL- INDUCTORS & TRANSFORMERS	Traction Transormers	Temperature rise test	IEC 60310:2016
275	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test (Ability to withstand the dynamic effects of short circuit)	IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017, +Amd No.3:2019, +Amd No.4:2021, IS:1180 (Part-3)



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276	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Short circuit withstand capability	IS:16227(Part -1)-2016/IEC:61869-1:2007,IS:16227(Part -3)-2015/IEC:61869-3:2011, IS:16227(Part -4)-2015/IEC:61869-4:2013,IS:16227(Part -5)-2015/IEC:61869-5:2011,IEC : 61869-1, 2007; IEC: 61869-3, 2011; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13:2016, IEEE C57.13.5
277	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage Transformers & CVT	Chopped Lightning impulse Voltage Test On Primary Winding	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)
278	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Enclosure tightness test at the ambient temperature	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)
279	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	High voltage Power Frequency Test (Dry and Wet)	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)
280	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Induced Voltage Withstand test	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)



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281	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage Transformers & CVT	Lightning impulse Voltage Test Capacitive Voltage Transformer	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)
282	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Partial Discharge	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)
283	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Switching impulse Voltage Withstand on primary Winding (Dry)	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)
284	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Temperature rise	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)
285	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Terminal Marking & Polarity	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)



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286	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Verification of the degree of Protection by enclosures.(Verification of IP coding and Mechanical impact test)	IEC: 61869-1, 2007; IS/IEC 60529-2001, IEC 60529-2013; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)
287	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Voltage Error and phase Displacement	IEC: 61869-1, 2007; IEC: 61869-3, 2012; IEC: 61869-4, 2013; IEC: 61869-5, 2011; IEEE C57.13, 2008; IEEE C57.13.5 2009, IS 16227(part-1) 2016, IS 16227(part-3) 2015, IS 16227(part-4), IS 16227(part-5)
288	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Breakdown voltage	IS 1866:2017 / IEC 60422:2013, IEC 60156
289	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Dielectric dissipation factor (DDF) at 90°C	IS 1866:2017 / IEC 60422:2013, IEC 60247
290	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Resistivity at 90°C	IS 1866:2017 / IEC 60422:2013, IEC 60247
291	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Water Content	IS 1866:2017 / IEC 60422:2013, IEC 60814
292	ELECTRICAL- INSULATING MATERIALS & INSULATORS	New Mineral Insulating Oils	Breakdown voltage	IS 335-2018, IEC 60296- 2020, IS 6792 2017/IEC 60156 : 1995, IEC 60156
293	ELECTRICAL- INSULATING MATERIALS & INSULATORS	New Mineral Insulating Oils	Dielectric dissipation factor (DDF) at 90 °C	IS 335-2018, IEC 60296- 2020, IS 16086 2013, IEC 60247 2004, or IEC 61620: 1998, IS 16840
294	ELECTRICAL- INSULATING MATERIALS & INSULATORS	New Mineral Insulating Oils	Water Content	IS 335-2018, IEC 60296- 2020, IEC 60814



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295	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Porcelain Insulators for Over Head Power Lines With Nominal Voltage Greater than 1000 V Insulator String, Post Insulators, Solid Core Insulator, Composite Insulators, pin Insulator, Polyester Housings Upto 400 KV rating	Lightning Impulse and 50% Impulse Voltage Flashover	IEC:60168:1994+AMD1:1997+AMD2:2000,IEC:60383-1/1993,IEC:60383-2/1993,IEC61109:2008,IEC 60433:1998,IS/IEC 60168:2000,IS:731:1971, IS1445:
296	ELECTRICAL- SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Residual operating Characteristics	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018 IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
297	ELECTRICAL- SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Making & breaking capacity	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:



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298	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short-circuit at 1,1 times take-over current current	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
299	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Tripping Limits and Characteristics	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011, BSEN:60947-2:2006+A1:2009, BSEN:60947-3:2009+A1



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300	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Autoreclosure	Mechanical operation	IS/IEC 62271(Part1):2007,IS/IEC 62271(Part100) :2008,IS/IEC 62271(Part111):2012,IEC 62271-1:2017,IEC 62271 100:2008+A1:2012 +A2:2017, IEC62271-111:2019, ANSI/IEEE C-37.60
301	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Autoreclosures	Operating Duty	IEC:62271-100:2021, IS/IEC:62271-100:2008;IEC 62271:111:2019; IEEE/IEC C37.60/62271-111
302	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Autoreclosures	Short time current	IEC:62271-100:2021, IS/IEC:62271-100:2008;IEC 62271:111:2019; IEEE/IEC C37.60/62271-111
303	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Autoreclosures	Temperature rise	IS/IEC 62271(Part1):2007,IS/IEC 62271(Part100) :2008,IS/IEC 62271(Part111):2012,IEC 62271-1:2017,IEC 62271 100:2008+A1:2012 +A2:2017, IEC62271-111:2019, ANSI/IEEE C-37.60
304	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Verification of the short circuit withstand strength	IS 13032:1991+A1:1993+A2:2017; IS 8084:1976+A1:1979+A2:1979 +A3:1981; IS 5039:1983+A1.1997; IS 2675:1983; IS 8623:Part 2:1993+A1.1993; IS 8623:Part 3:1993+A1.1997; IS/IEC 61439-0:2010; IS/IEC 61439:Part1:2011; IS/IEC 61439-2:2011; IS/IEC:61439-3:2012; IS/IEC 61439-4:2012; IS/IEC61439-5:2014; IS/IEC 61439-6:2012; IS/IEC/TS 61439-7:2014; IS/IEC60947-1:2007+A1:2015; IEC 61439-1 2020; IEC 61439-2 2020; IEC 61439-3:2012; IEC 61439-4-2012; IEC 61439-5:2014; IEC 61439-6 2012; IEC60947-1:2020; IEC 60529



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305	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Ability to withstand mechanical load	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2021 IEC 60529, 2013 IEEE C37.23
306	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Ability to withstand mechanical load	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA
307	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Conductors covered by insulating material to provide protection against electric shock	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2021 IEC 60529, 2013 IEEE C37.23



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308	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Conductors covered by insulating material to provide protection against electric shock	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA
309	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	External operation handles of insulating material	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4:2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2021 IEC 60529, 2013 IEEE C37.23
310	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	External operation handles of insulating material	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA



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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
311	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Testing of enclosures made of insulating material	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2021 IEC 60529, 2013 IEEE C37.23
312	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Degree of protection of assemblies	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2007 +A1 2010 +A2 2014 IEC 60529, 2013 IEEE C37.23
313	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Degree of protection of assemblies	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA 2017, IS/IEC60529:



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314	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Lihgtning Impulse	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018, IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011, IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA
315	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Mechanical operation- ON-OFF Operations of switchgears conducted as per standard	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2007 +A1 2010 +A2 2014 IEC 60529, 2013 IEEE C37.23
316	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Mechanical operation, Verification of Mechanical operation-- ON-OFF manual operations on switchgears conducted as per standard	IS 8623 : Part 2 : 1993+A1 :1993 IS 8623 : Part 3 1993 +A1:1997, IS/IEC 61439:Part0:2010 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015



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317	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Power-frequency withstand voltage	IS 13032:1991+A1:1993+A2:2017; IS 8084:1976+A1:1979+A2:1979+A3:1981; IS 5039:1983+A1.1997; IS 2675:1983; IS 8623:Part 2:1993+A1.1993; IS 8623:Part 3:1993+A1.1997; IS/IEC 61439-0:2010; IS/IEC 61439:Part1:2011; IS/IEC 61439-2:2011; IS/IEC:61439-3:2012; IS/IEC 61439-4:2012; IS/IEC61439-5:2014; IS/IEC 61439-6:2012; IS/IEC/TS 61439-7:2014; IS/IEC60947-1:2007+A1:2015; IEC 61439-1 2020; IEC 61439-2 2020; IEC 61439-3:2012; IEC 61439-4:2012; IEC 61439-5:2014; IEC 61439-6 2012; IEC60947-1:2020; IEC 60529
318	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Temperature Rise	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2007 +A1 2010 +A2 2014 IEC 60529, 2013 IEEE C37.23



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319	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Temperature Rise	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018, IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA
320	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Verification of clearances and creepage distance	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018, IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA
321	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Verification of Clearances and creepage distance	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2007 +A1 2010 +A2 2014 IEC 60529, 2013 IEEE C37.23



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322	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Impulse withstand voltage (Upto 400 kV Class)	IEC 61439-1, IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1, 2007 +A1 2010 +A2 2014 IEC 60529, 2013 IEEE C37.23
323	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Lifting-Verification by test	IS/IEC 61439:Part0:2010 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015: 2017, IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1, 2021 IEC 60529, 2013 IEEE C37.23
324	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Marking	IEC 61439-1, IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1, 2021 IEC 60529, 2013 IEEE C37.23



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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
325	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Marking-Verification by test	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA
326	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Mechanical impact (IK)	,IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2021 IEC 60529, 2013 IEEE C37.23
327	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Mechanical Impact (IK)	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA



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328	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Resistance to abnormal heat and fire due to internal electric effects	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2021 IEC 60529, 2013 IEEE C37.23
329	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Resistance to abnormal heat and fire due to internal electric effects	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA
330	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Resistance to corrosion	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2021 IEC 60529, 2013 IEEE C37.23



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331	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Resistance to corrosion	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA
332	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Short-time withstand current	IEEE C37.23
333	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Terminals for external conductors	IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2021 IEC 60529, 2013 IEEE C37.23
334	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Terminals for external conductors	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA



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335	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Testing of enclosures made of insulating material- Power frequency withstand voltage test	IS 8623 : Part 2 : 1993+A1 :1993 IS 8623 : Part 3 1993 +A1:1997, IS/IEC 61439:Part0:2010 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015
336	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Thermal stability	,IEC 61439-1 2020, IEC 61439-2 2020, IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6 2012, IEC60947-1,2021 IEC 60529, 2013 IEEE C37.23
337	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Thermal stability	IS 13032 : 1991+A1: 1991+ A2: 2017 RA2016 IS 8084,1976 + A1:1979+ A2: 1979+ A3: 1981 RA 2017, IS 5039,1983 A1-1997 RA2016, IS 2675, 1983 RA2016, IS 8623 : Part 2 : 1993+A1 :1993 RA2018 IS 8623 : Part 3 1993 +A1:1997RA2018 IS/IEC 61439:Part0:2010RA2020 IS/IEC 61439:Part1:2011 IS/IEC 61439:Part2:2011RA2018 IS/IEC 61439:Part3:2012 IS/IEC 61439:Part4:2012 IS/IEC 61439:Part5:2014 IS/IEC 61439:Part6:2012 IS/IEC/TS 61439:Part7:2014 IS/IEC60947-1, 2007+A1:2015 RA
338	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels, MCB boards, Distribution pillars, distribution fuse boards and cut out etc.	Verification of the protective circuit	IEEE C37.23



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339	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Short time current test	IS 13032:1991+A1:1993+A2:2017; IS 8084:1976+A1:1979+A2:1979+A3:1981; IS 5039:1983+A1.1997; IS 2675:1983; IS 8623:Part 2:1993+A1.1993; IS 8623:Part 3:1993+A1.1997; IS/IEC 61439-0:2010; IS/IEC 61439:Part1:2011; IS/IEC 61439-2:2011; IS/IEC 61439-3:2012; IS/IEC 61439-4:2012; IS/IEC61439-5:2014; IS/IEC 61439-6:2012; IS/IEC/TS 61439-7:2014; IS/IEC60947-1:2007+A1:2015; IEC 61439-1 2020; IEC 61439-2 2020; IEC 61439-3:2012; IEC 61439-4:2012; IEC 61439-5:2014; IEC 61439-6 2012; IEC60947-1:2020; IEC 60529
340	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Testing under condition of arcing due to internal fault	IS 13032:1991+A1:1993+A2:2017; IS 8084:1976+A1:1979+A2:1979+A3:1981; IS 5039:1983+A1.1997; IS 2675:1983; IS 8623:Part 2:1993+A1.1993; IS 8623:Part 3:1993+A1.1997; IS/IEC 61439-0:2010; IS/IEC 61439:Part1:2011; IS/IEC 61439-2:2011; IS/IEC:61439-3:2012; IS/IEC 61439-4:2012; IS/IEC61439-5:2014; IS/IEC 61439-6:2012; IS/IEC/TS 61439-7:2014; IS/IEC60947-1:2007+A1:2015; IEC 61439-1 2020; IEC 61439-2 2020; IEC 61439-3:2012; IEC 61439-4:2012; IEC 61439-5:2014; IEC 61439-6 2012; IEC60947-1:2020; IEC 60529



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341	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Verification of the protective circuit	IS 13032:1991+A1:1993+A2:2017; IS 8084:1976+A1:1979+A2:1979+A3:1981; IS 5039:1983+A1.1997; IS 2675:1983; IS 8623:Part 2:1993+A1.1993; IS 8623:Part 3:1993+A1.1997; IS/IEC 61439-0:2010; IS/IEC 61439:Part1:2011; IS/IEC 61439-2:2011; IS/IEC:61439-3:2012; IS/IEC 61439-4:2012; IS/IEC61439-5:2014; IS/IEC 61439-6:2012; IS/IEC/TS 61439-7:2014; IS/IEC60947-1:2007+A1:2015; IEC 61439-1 2020; IEC 61439-2 2020; IEC 61439-3:2012; IEC 61439-4-2012; IEC 61439-5:2014; IEC 61439-6 2012; IEC60947-1:2020; IEC 60529
342	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnecter and Earthing Switches	Making Performance of Earthing switches	IEC 62271-1:2017,IEC 62271-100:2021, IEC 62271-102:2018,IEC 62271-103:2021, IEC 62271-104:2020, IEC 62271-105:2021, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-102:2003, IS/IEC 62271-103:2011, IEEE C37.09:2018 CoR.1-2021, IEEE/IEC C37.60/62271-111-2018, IEEE C37.30.1:2011+A1



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343	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Resistance of main circuit	IEC 62271-1:2017, IEC 62271-100:2021, IEC 62271-102:2018, IEC 62271-103:2021, IEC 62271-104:2020, IEC 62271-105:2021, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-102:2018, IEEE C37.09:2018 CoR.1-2021, IEEE/IEC C37.60/62271-111-2018, IEEE C37.30.1:2011+A1
344	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Lightning impulse voltage tests, Power-frequency voltage withstand tests	IS/IEC 62271 (Part 1), 2007, IS/IEC 62271(Part 102), 2003, IEC 62271-1, 2017 IEC 62271-102, 2018. IEEE Std C37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32, 2002, IEEE Std C37.23, 2003 IEEE Std C37.34
345	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Lightning Impulse Voltage Withstand (Upto 400 kV Class)	IS/IEC 62271 (Part 1), 2007 RA2018; IS/IEC 62271(Part 102), 2003 RA2018; IEC 62271-1, 2017 IEC 62271-102, 2018. IEEE Std C37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32, 2002, IEEE Std C37.23, 2003 IEEE Std C37.34
346	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Mechanical Endurance	IS/IEC 62271 (Part 1), 2007 RA2018; IS/IEC 62271(Part 102), 2003 RA2018; IEC 62271-1, 2017 IEC 62271-102, 2018. IEEE Std C37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32, 2002, IEEE Std C37.23, 2003 IEEE Std C37.34



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347	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Short Time Withstand Current and Peak Withstand Current.	IEC 62271-1:2017, IEC 62271-100:2021, IEC 62271-102:2018, IEC 62271-103:2021, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-102:2018, IS/IEC 62271-103:2011, IEEE C37.09:2018 CoR.1-2021, IEEE/IEC C37.60/62271-111-2018, IEEE C37.30.1:2011+A1
348	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Switching impulse voltage test(dry)	IS/IEC 62271 (Part 1), 2007 RA2018; IS/IEC 62271(Part 102), 2003 RA2018; IEC 62271-1, 2017 IEC 62271-102, 2018. IEEE Std C37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32, 2002, IEEE Std C37.23, 2003 IEEE Std C37.34
349	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Temperature rise test	IS/IEC 62271 (Part 1), 2007 ; IS/IEC 62271(Part 102), 2003; IEC 62271-1, 2017 IEC 62271-102, 2018. IEEE Std C37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32, 2002, IEEE Std C37.23, 2003 IEEE Std C37.34
350	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Fuses/ Distribution Fuse Boards and Cut outs	Time Current Characteristic	IS 9385 :Part 1:2018/IEC 60282- 1:2009; IS 9385:Part 2:2018/IEC 60282- 2:2008; IS:9385- 3:1980; IS:9385- 4:1983; IEC:60282- 1:2020; IEC:60282- 2:2008; IS:2675-1983; IS/IEC 60947-1:2007; IEC 60947-1:2020; IS/IEC:60529:2001; IEC 60529-1989+A1:1999+A2:2013; IEEE C37.40:2003; IEEE C37.41:2016; IEEE C37.42



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351	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Fuses/ Distribution Fuse Boards and Cut-Outs	Shot Circuit Breaking Capacity	IS 9385 :Part 1:2018/IEC 60282- 1:2009; IS 9385:Part 2:2018/IEC 60282- 2:2008; IS:9385- 3:1980; IS:9385-4:1983; IEC:60282- 1:2020; IEC:60282- 2:2008; IS:2675-1983; IS/IEC 60947-1:2007; IEC 60947-1:2020; IS/IEC:60529:2001; IEC 60529-1989+A1:1999+A2:2013; IEEE C37.40:2003; IEEE C37.41:2016; IEEE C37.42
352	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Fuses/ Distribution Fuse Boards and Cut-Outs	Dielectric test.	IS 9385-1:2018,IS 9385-2: 2018,IS 9385-3: 1980,Reaffirmed 2018; IS 9385-4: 1983,Reaffirmed 2018; IEC 60282-1:2020,IS/IEC 60947-1:2004 IS 2675:1983 Reaffirmed 2016, IS/IEC 60529:2001, IEC 60282-2:2008,IEC 60947-1:2020,IEC 60529:2013, IEEEC37.40:2003, IEEEC37.41:2008,IEEE C37.42
353	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Fuses/ Distribution Fuse Boards and Cut-Outs	Temperature rise Test.	IS 9385-1:2018,IS 9385-2: 2018,IS 9385-3: 1980,Reaffirmed 2018; IS 9385-4: 1983,Reaffirmed 2018; IEC 60282-1:2020,IS/IEC 60947-1:2004 IS 2675:1983 Reaffirmed 2016, IS/IEC 60529:2001, IEC 60282-2:2008,IEC 60947-1:2020,IEC 60529:2013, IEEEC37.40:2003, IEEEC37.41:2008,IEEE C37.42



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354	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer / Capacitor Switch / Load Break Switch	Earth fault current test (TDef1)	IS/IEC:62271-1:2007, IS/IEC:62271-102:2003, IS/IEC 62271-100:2008, IS/IEC 62271-103:2011, IEC 62271-1:2017, IEC 62271-100:2021, IEC 62271-102:2018, IEC 62271-103:2021, IEC 62271-104:2020, IEC 62271-105:2021, IEC 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-203:2011, IS/IEC 62271-200:2011, IEC 60529:1989+A1:1999+A2:2013, IEEE C37.40:2003, IEEE C37.41:2016,IEEE 37.09:2018/Cor1-2021, IEEE C37.30.1 2011+A1.2017, IEEE C37.42
355	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer /Capacitor Switch / Load Break Switch	Cable- and line-charging current test under earth faults (TDef2)	IS/IEC:62271-1:2007, IS/IEC:62271-102:2003, IS/IEC 62271-100:2008, IS/IEC 62271-103:2011, IEC 62271-1:2017, IEC 62271-100:2021, IEC 62271-102:2018, IEC 62271-103:2021, IEC 62271-104:2020, IEC 62271-105:2021, IEC 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-203:2011, IS/IEC 62271-200:2011, IEC 60529:1989+A1:1999+A2:2013, IEEE C37.40:2003, IEEE C37.41:2016,IEEE 37.09:2018/Cor1-2021, IEEE C37.30.1 2011+A1.2017, IEEE C37.42



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356	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Switching impulse voltage test(dry)	IS/IEC 62271 (Part 1),2007 RA2018; IS/IEC 62271(Part 103), 2011RA2015 IEC 62271-1, 2017 . IEC 62271-103, 2021. IEEE StdC37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32,2002, IEEE Std C37.23,2003 IEEE Std C37.34
357	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Dielectric Tests (Wet &Dry)	IS/IEC 62271 (Part 1),2007 RA2018; IS/IEC 62271(Part 103), 2011RA2015 IEC 62271-1, 2017 . IEC 62271-103, 2021. IEEE StdC37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32,2002, IEEE Std C37.23,2003 IEEE Std C37.34
358	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Lightning Impulse Voltage Withstand (Upto 400 kV Class)	IS/IEC 62271 (Part 1),2007 RA2018; IS/IEC 62271(Part 103), 2011RA2015 IEC 62271-1, 2017 . IEC 62271-103, 2021. IEEE StdC37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32,2002, IEEE Std C37.23,2003 IEEE Std C37.34



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359	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Making and Breaking Tests (Test Duties)	IS/IEC:62271-1:2007, IS/IEC:62271-102:2003, IS/IEC 62271-100:2008, IS/IEC 62271-103:2011, IEC 62271-1:2017, IEC 62271-100:2021, IEC 62271-102:2018, IEC 62271-103:2021, IEC 62271-104:2020, IEC 62271-105:2021, IEC 62271-106:2021; IEC 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-203:2011, IS/IEC 62271-200:2011, IEC 60529:1989+A1:1999+A2:2013, IEEE C37.40:2003, IEEE C37.41:2016, IEEE 37.09:2018/Cor1-2021, IEEE C37.30.1 2011+A1.2017, IEEE C37.42
360	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Mechanical endurance test	IS/IEC 62271 (Part 1),2007 RA2018; IS/IEC 62271(Part 103), 2011RA2015 IEC 62271-1, 2017 . IEC 62271-103, 2021. IEEE StdC37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32,2002, IEEE Std C37.23,2003 IEEE Std C37.34



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361	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Rated Short Circuit Making Capacity	IS/IEC:62271-1:2007, IS/IEC:62271-102:2003, IS/IEC 62271-100:2008, IS/IEC 62271-103:2011, IEC 62271-1:2017, IEC 62271-100:2021, IEC 62271-102:2018, IEC 62271-103:2021, IEC 62271-104:2020, IEC 62271-105:2021, IEC 62271-106:2021; IEC 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-203:2011, IS/IEC 62271-200:2011, IEC 60529:1989+A1:1999+A2:2013, IEEE C37.40:2003, IEEE C37.41:2016, IEEE 37.09:2018/Cor1-2021, IEEE C37.30.1 2011+A1.2017, IEEE C37.42
362	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Resistance of Main Circuit	IS/IEC:62271-1:2007, IS/IEC:62271-102:2018, IS/IEC 62271-100:2008, IS/IEC 62271-103:2011, IEC 62271-1:2017, IEC 62271-100:2021, IEC 62271-102:2018, IEC 62271-103:2021, IEC 62271-104:2020, IEC 62271-105:2021, IEC 62271-106:2021; IEC 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-203:2011, IS/IEC 62271-200:2011, IEC 60529:1989+A1:1999+A2:2013, IEEE C37.40:2003, IEEE C37.41:2016, IEEE 37.09:2018/Cor1-2021, IEEE C37.30.1 2011+A1.2017, IEEE C37.42



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363	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Short Time Withstand Current and Peak Withstand Current	IS/IEC:62271-1:2007, IS/IEC:62271-102:2018, IS/IEC 62271-100:2008, IS/IEC 62271-103:2011, IEC 62271-1:2017, IEC 62271-100:2021, IEC 62271-102:2018, IEC 62271-103:2021, IEC 62271-104:2020, IEC 62271-105:2021, IEC 62271-106:2021; IEC 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-203:2011, IS/IEC 62271-200:2011, IEC 60529:1989+A1:1999+A2:2013, BS 6581:1985; IEEE C37.40:2003, IEEE C37.41:2016,IEEE 37.09:2018/Cor1-2021, IEEE C37.30.1 2011+A1.2017, IEEE C37.42
364	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Single Capacitor Bank Switching	IS/IEC:62271-1:2007, IS/IEC:62271-102:2003, IS/IEC 62271-100:2008, IS/IEC 62271-103:2011, IEC 62271-1:2017, IEC 62271-100:2021, IEC 62271-102:2018, IEC 62271-103:2021, IEC 62271-104:2020, IEC 62271-105:2021, IEC 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-203:2011, IS/IEC 62271-200:2011, IEC 60529:1989+A1:1999+A2:2013, IEEE C37.40:2003, IEEE C37.41:2016,IEEE 37.09:2018/Cor1-2021, IEEE C37.30.1 2011+A1.2017, IEEE C37.42



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365	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Temperature Rise	IS/IEC 62271 (Part 1),2007 RA2018; IS/IEC 62271(Part 103), 2011RA2015 IEC 62271-1, 2017 . IEC 62271-103, 2021. IEEE StdC37.30, 1997 IEEE Std C37.09, 1993 IEEE Std C37.32,2002, IEEE Std C37.23,2003 IEEE Std C37.34
366	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Switchgear Panel With Circuit Breaker	Inductive Load Current Switching	IEC 62271-1:2017,IEC 62271-100:2021, IEC; 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-202:2022 IEC 62271-203:2011, IEC 60077-1:2017, IEC 60077-2:2017, IEC 60077-4:2019,IEC 60529:1989+A1:1999+A2:2013, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-200:2011, IS/IEC 62271-102:2003, BS 6581:1985/IEC60694:1980, IEEE C37.09:2018 CoR.1-2021, IEEE/IEC C37.60/62271-111
367	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Switchgear Panel With Circuit Breaker	Internal Arc Test	IEC 62271-1:2017,IEC 62271-100:2021, IEC; 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-202:2022, IEC 62271-203:2011, IEC 60077-1:2017, IEC 60077-2:2017, IEC 60077-4:2019,IEC 60529:1989+A1:1999+A2:2013, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-200:2011, IS/IEC 62271-102:2003, BS 6581:1985/IEC60694:1980, IEEE C37.09:2018 Cor.1-2021, IEEE/IEC C37.60/62271-111



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368	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Switchgear Panel With Circuit Breaker	Measurement of the resistance of the main circuit.	IEC 62271-1:2017, IEC 62271-100:2021, IEC; 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-202:2022, IEC 62271-203:2011, IEC 60077-1:2017, IEC 60077-2:2017, IEC 60077-4:2019, IEC 60529:1989+A1:1999+A2:2013, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-200:2011, IS/IEC 62271-102:2018, BS 6581:1985/IEC60694:1980, IEEE C37.09:2018 Cor.1-2021, IEEE/IEC C37.60/62271-111
369	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Switchgear Panel With Circuit Breaker	Lighning Impulse Voltage withstand	IEC 62271-100:2021. IEC 62271-110,2017. IEC 62271-102,2018 IEC 62271-200,2021. IEC 62271-201, 2022. IEC 62271-202, 2022 IEC 62271-203, 2011. IEC 62271-1, 2017. IEC 60077-2,2017. IEC 60077-4,2019 BS 6581,1985/IEC 694, 1980.IS/IEC 62271 (part-1),2007.IS/IEC 62271 (part-100), 2008, IS/IEC 62271(part-200), 2003.IS/IEC 62271 (part-102), 2003. IS/IEC 62271-201:2006 . IS/IEC 62271-202:2022 . IS/IEC 62271-203:2011 IEEE Std C37.09



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370	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Switchgear Panel With Circuit Breaker	Mechanical Operation at Ambient Air Temperature	IEC 62271-100:2021. IEC 62271-110,2017. IEC 62271-102,2018 IEC 62271-200,2021. IEC 62271-201, 2022. IEC 62271-202, 2022 IEC 62271-203, 2011. IEC 62271-1, 2017. IEC 60077-2,2017. IEC 60077-4,2019 BS 6581,1985/IEC 694, 1980.IS/IEC 62271 (part-1),2007.IS/IEC 62271 (part-100), 2008, IS/IEC 62271(part-200), 2003.IS/IEC 62271 (part-102), 2003. IS/IEC 62271-201:2006 . IS/IEC 62271-202:2022 . IS/IEC 62271-203:2011 IEEE Std C37.09
371	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Switchgear Panel With Circuit Breaker	Temperature rise test (0-25KA)	IEC 62271-100:2021. IEC 62271-110,2017. IEC 62271-102,2018 IEC 62271-200,2021. IEC 62271-201, 2022. IEC 62271-202, 2022 IEC 62271-203, 2011. IEC 62271-1, 2017. IEC 60077-2,2017. IEC 60077-4,2019 BS 6581,1985/IEC 694, 1980.IS/IEC 62271 (part-1),2007.IS/IEC 62271 (part-100), 2008, IS/IEC 62271(part-200), 2003.IS/IEC 62271 (part-102), 2003. IS/IEC 62271-201:2006 . IS/IEC 62271-202:2022 . IS/IEC 62271-203:2011 IEEE Std C37.09



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372	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel With Circuit Breaker	Verification of the degree of Protection by enclosures.(Verification of IP coding and Mechanical impact test)	IEC 62271-100:2021. IEC 62271-110,2012. IEC 62271-102,2018 IEC 62271-200,2021. IEC 62271-201, 2022. IEC 62271-202, 2022 IEC 62271-203, 2011. IEC 62271-1, 2017. IEC 60077-2:2017. IEC 60077-4,2019 BS 6581,1985/IEC 694, 1980.IS/IEC 62271 (part-1),2007.IS/IEC 62271 (part-100), 2008, IS/IEC 62271(part-200), 2003.IS/IEC 62271 (part-102), 2003. IS/IEC 62271-201:2006 . IS/IEC 62271-202:2022 . IS/IEC 62271-203:2011 IEEE Std C37.09
373	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	No-load operation	IEC 62271-1:2017,IEC 62271-100:2021, IEC; 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-202:2022, IEC 62271-203:2011, IEC 60077-1:2017, IEC 60077-2:2017, IEC 60077-4:2019,IEC 60529:1989+A1:1999+A2:2013, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-200:2011, IS/IEC 62271-102:2003, BS 6581:1985/IEC60694:1980, IEEE C37.09:2018 Cor.1-2021, IEEE/IEC C37.60/62271-111



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374	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Switching impulse voltage test(dry)	IEC 62271-100:2021, IEC 62271-110,2017, IEC 62271-102,2018 IEC 62271-200,2021, IEC 62271-201, 2014, IEC 62271-202, 2014 IEC 62271-203, 2011, IEC 62271-1, 2017, IEC 60077-2,2017, IEC 60077-4,2019 BS 6581,1985/IEC 694, 1980.IS/IEC 62271 (part-1),2007.IS/IEC 62271 (part-100), 2008, IS/IEC 62271(part-200), 2003.IS/IEC 62271 (part-102), 2003, IS/IEC 62271-201:2006 . IS/IEC 62271-202:2014 . IS/IEC 62271-203:2011 IEEE Std C37.09: 2012
375	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit breaker & switchgear panel with circuit breaker	Terminal Fault Tests (Short circuit making and breaking), Single-phase and double-earth fault tests and Out-of-phase making and breaking tests	IEC 62271-1:2017,IEC 62271-100:2021, IEC; 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-202:2022, IEC 62271-203:2011, IEC 60077-1:2017, IEC 60077-2:2017, IEC 60077-4:2019,IEC 60529:1989+A1:1999+A2:2013, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-200:2011, IS/IEC 62271-102:2003, BS 6581:1985/IEC60694:1980, IEEE C37.09:2018 Cor.1-2021, IEEE/IEC C37.60/62271-111



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376	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Capacitive Current Switching (Line Charging, Cable charging & Capacitor bank current) & Single Phase Capacitive Current (Line Charging, Cable charging & Capacitor bank current)	IEC 62271-1:2017, IEC 62271-100:2021, IEC; 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-202:2022, IEC 62271-203:2011, IEC 60077-1:2017, IEC 60077-2:2017, IEC 60077-4:2019, IEC 60529:1989+A1:1999+A2:2013, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-200:2011, IS/IEC 62271-102:2003, BS 6581:1985/IEC60694:1980, IEEE C37.09:2018 Cor.1-2021, IEEE/IEC C37.60/62271-111
377	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Dielectric test (Wet/Dry): power frequency withstand voltage test	IEC 62271-100:2021, IEC 62271-110, 2017, IEC 62271-102, 2018 IEC 62271-200, 2021, IEC 62271-201, 2014, IEC 62271-202, 2022 IEC 62271-203, 2011, IEC 62271-1, 2017, IEC 60077-2, 2017, IEC 60077-4, 2019 BS 6581:1985/IEC 694, 1980, IS/IEC 62271 (part-1), 2007, IS/IEC 62271 (part-100), 2008, IS/IEC 62271(part-200), 2003, IS/IEC 62271 (part-102), 2003, IS/IEC 62271-201:2006, IS/IEC 62271-202:2022, IS/IEC 62271-203:2011 IEEE Std C37.09: 2012



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378	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Short Time Withstand Current & peak Withstand Current	IEC 62271-1:2017, IEC 62271-100:2021, IEC; 62271-110:2017, IEC 62271-200:2021, IEC 62271-201:2014, IEC 62271-202:2022, IEC 62271-203:2011, IEC 60077-1:2017, IEC 60077-2:2017, IEC 60077-4:2019, IEC 60529:1989+A1:1999+A2:2013, IS/IEC 62271-1:2007, IS/IEC 62271-100:2008, IS/IEC 62271-200:2011, IS/IEC 62271-102:2003, BS 6581:1985/IEC60694:1980, IEEE C37.09:2018 Cor.1-2021, IEEE/IEC C37.60/62271-111
379	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Contactor	Rated Making and Breaking Capacity	IS/IEC 62271-106 : 2011; IS: 5561:2018; IEC 62271-1, 2017; IEC 62271-106:2021, IEEE/IEC C37.60/62271-111:
380	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Contactor / HT Connector	Short Time Current	IS/IEC 62271-106 : 2011; IS: 5561:2018; IEC 62271-1, 2017; IEC 62271-106:2021, IEEE/IEC C37.60/62271-111
381	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Contactor / HT Connector	Power frequency withstand test (Dielectric test)	IS/IEC 60470: 2000, IS 5561:2018, IEC 62271 - 1:2017, IEC 62271 - 106
382	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Contactor / HT Connector	Dielectric Test	IS/IEC 60470: 2000, IS 5561:2018, IEC 62271 - 1:2017, IEC 62271 - 106
383	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Contactor/ HT Connector	Dimensions	IS/IEC 60470: 2000, IS 5561:2018, IEC 62271 - 1:2017, IEC 62271 - 106
384	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Contactor/ HT Connector	Mechanical Endurance	IS/IEC 60470: 2000, IS 5561:2018, IEC 62271 - 1:2017, IEC 62271 - 106
385	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Contactor/ HT Connector	Temperature Rise Test	IS/IEC 60470: 2000, IS 5561:2018, IEC 62271 - 1:2017, IEC 62271 - 106



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386	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Fuses / Distribution fuse boards and cut outs	Power Dissipation	IS 9385-1:2018,IS 9385-2:2018,IS 9385-3:1980,Reaffirmed 2018; IS 9385-4: 1983,Reaffirmed 2018; IEC 60282-1:2020,IS/IEC 60947-1:2004 IS 2675:1983 Reaffirmed 2016, IS/IEC 60529:2001, IEC 60282-2:2008,IEC 60947-1:2020,IEC 60529:2013, IEEEC37.40:2003, IEEEC37.41:2008,IEEE C37.42
387	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Fuses/ Distribution fuse boards and cut outs	Creepage distance and clearance	IS 9385-1:2018,IS 9385-2:2018,IS 9385-3:1980,Reaffirmed 2018; IS 9385-4: 1983,Reaffirmed 2018; IEC 60282-1:2020,IS/IEC 60947-1:2004 IS 2675:1983 Reaffirmed 2016, IS/IEC 60529:2001, IEC 60282-2:2008,IEC 60947-1:2020,IEC 60529:2013, IEEEC37.40:2003, IEEEC37.41:2008,IEEE C37.42
388	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	HT Fuses/ Distribution fuse boards and cut outs	Degrees of Protection	IS 9385-1:2018,IS 9385-2:2018,IS 9385-3:1980,Reaffirmed 2018; IS 9385-4: 1983,Reaffirmed 2018; IEC 60282-1:2020,IS/IEC 60947-1:2004 IS 2675:1983 Reaffirmed 2016, IS/IEC 60529:2001, IEC 60282-2:2008,IEC 60947-1:2020,IEC 60529:2013, IEEEC37.40:2003, IEEEC37.41:2008,IEEE C37.42



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389	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	.Moisture and Humidity Test / Reliability (Climatic test)	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018 IEC-61008-1, 2013 (CSV), IEC-6100
390	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Performance under Conditional short Circuit current	IS/IEC-60947-1:2007+A1:2015; IS/IEC-60947-2:2016; IS/IEC-60947-3:2012; IS/IEC-60947-4-1:2012; IS/IEC-60947-4-2:2011; IS/IEC-60947-5-1:2009; IEC-60947-1:2020; IEC-60947-2:2019; IEC-60947-3:2020; IEC-60947-4-1:2018; IEC-60947-4-2:2020; IEC-60947-5-1:2016; IEC-60947-5-2:2020; IEC-60947-7-1:2009; IS/IEC-60898-1:2015; IS/IEC-60898-2:2003; IEC-60898-1:2015+A1:2019; IEC-60898-2:2016; BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:



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391	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of rated making and breaking capacities, change over ability and reversibility	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
392	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Condition of Arcing Due to Internal Fault	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2021; +A2:



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393	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Controls, Sequence and Limits of Operation	IS/IEC 60947-1 :2004+A1-2015 IS/IEC 60947-2 :2003 IS/IEC 60947-3:2012 IS/IEC 60947 - 4 - 1 ,2012 IS/IEC 60947 - 4 - 2 ,2011 IS/IEC 60947 - 5 - 1 ,2009, IEC 60947-1, 2007,A1:2010,A2:2014, IEC 60947-2, 2016:2016, IEC 60947-3, 2008,A1:2012+A2:2015 IEC 60947-4-1, 2018 , IEC 60947-4-2, 2011,IEC 60947-5-1 2016 , IEC 60947-7-1, 2009, IEC 60947-7-2, 2009 IS/IEC 60898-1, 2015, IS/IEC 60898-2, 2003, IEC 60898-1 2015, IEC 60898-2 2016 , IS 12640 : Part 1, 2016 , IS 12640 :
394	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Fuse protected short circuit withstand	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:



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395	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit at selectivity limit current	IS 12640:Part 1:2016/IEC 61008-1:2012+A1:2016+A2:2018+A3:2018+A4:2018, IS 12640-2:2016/IEC 61009-1 : 2012+A1:2016+A2:2018+A3:2018, IEC 61008-1:2010+A1:2012+A2:2013, IEC-61008-2-1:1990, IEC-61008-2-2:1990, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
396	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	28-day Testing	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
397	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Ageing of electronic Component	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
398	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Behaviour of RCCB In Case of Earth Fault Current Comprising a D.C. Component	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
399	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	behavioyur of The RCCB In Case of Failure of The Line Voltage	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2



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400	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Circuit Fault Current	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011+A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
401	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Clearances and Creepage Distances	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100



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402	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Condition of Arcing Due to Internal Fault	IS 12640:Part 1:2016/IEC 61008-1:2012+A1:2016+A2:2018+A3:2018+A4:2018, IS 12640-2:2016/IEC 61009-1:2012+A1:2016+A2:2018+A3:2018, IEC 61008-1:2010+A1:2012+A2:2013, IEC-61008-2-1:1990, IEC-61008-2-2:1990, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011, BSEN:60947-2:2006+A1:2009, BSEN:60947-3:2009+A1
403	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	conventional operational Performance	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011, BSEN:60947-2:2006+A1:2009, BSEN:60947-3:2009+A1



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404	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Coordination at the rated making and breaking capacity	IS/IEC 60947-1 :2004, IS/IEC 60947-2 :2016 IS/IEC 60947-3:2012 IS/IEC 60947 - 4 - 1 ,2012 IS/IEC 60947 - 4 - 2 ,2011 IS/IEC 60947 - 5 - 1 ,2009, IEC 60947-1, 2020, IEC 60947-2, 2016:2016, IEC 60947-3, 2020, IEC 60947-4-1, 2018 , IEC 60947-4-2, 2020,IEC 60947-5-1 2016 , IEC 60947-7-1, 2009, IEC 60947-7-2, 2009 IS/IEC 60898-1, 2015, IS/IEC 60898-2, 2003, IEC 60898-1 2015, IEC 60898-2 2016 , IS 12640 : Part 1, 2016 , IS 12640 Part 2:
405	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Degree of protection of test device	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
406	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Dielectric Properties-- 1) Verification of impulse withstand voltage 2) Power-frequency withstand verification of solid insulation 3) Power-frequency withstand verification after switching and short-circuit tests 4) Verification of creepage distances 5) Verification of leakage current of equipment suitable for isolation	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100



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407	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Dielectric Verification- 1) Power-frequency withstand verification of solid insulation 2) Verification of leakage current of equipment suitable for isolation	IS/IEC 60947-1 :2004 IS/IEC 60947-2 :2003 IS/IEC 60947-3:1999 IS/IEC 60947 - 4 - 1 2000 IS/IEC 60947 - 5 - 1 2003 IEC 60947-1, 2007,A1:2010,A2:2014 IEC 60947-2, 2006 A1:2009,A2:2013 IEC 60947-3, 2008,A1:2012 IEC 60947-4-1, 2009 , A1-2012 IEC 60947-4-2, 2011 IEC 60947-5-1 2003, A1-2009 IEC 60947-7-1, 2009 IS/IEC 60898-1, 2002 IS/IEC 60898-2, 2003 IEC 60898-1 2002, A1-2002, A2-2003 IEC 60898-2 2000,A1-2003, IS 12640 : Part 1, 2008 IS 12640 : Part 2, 2008
408	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Discrimination between SCPD and overload relay	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1



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409	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Environment Test -- Verification of Reliability- Climatic test, Resistance to humidity, Damp Heat Cycle test	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100
410	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Fuse protected short circuit making	IS/IEC 60898-1, 2015, IS/IEC 60898-2, 2003, IEC 60898-1 2015, IEC 60898-2 2016 , IS 12640 : Part 1, 2016 , IS 12640 : Part 2, 2016, IEC 61008-1, 2010 , A1-2012 , A2-2013, IEC 61008-2-1 1990, IEC 61008-2-2 1990, IEC 61009-1, 2010, A1-2012 , A2
411	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Indelibility of Marking	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2



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412	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Individual pole short circuit breaking capacity	IS 10027:2018, IEC 60755:2017, IS 13032, 1991, IEC 60695-2-10;IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:2015 IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2
413	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Insulation Resistance (at max 1000vDC)	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:2015 IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640



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414	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	L V Switchgear and Control gear / LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100
415	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Leakage Current (at max 5000v)	IS/IEC-60947-1:2007, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100
416	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Limiting Values of The Non Operating Currents Under Overcurrent Conditions	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2



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417	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Mechanical and Electrical Endurance	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100
418	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Mechanism/Trip Free Mechanism	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
419	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Non Interchangeability	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
420	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Operation of the test device at the limits of rated voltage	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2



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421	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Operational Performance Capability (electrical and mechanical endurance test both)	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018,, IEC-61008-1, 2013 (CSV), IEC-610
422	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Operational Performance-- Operational performance capability without current, Operational performance capability with current, Verification of mechanical and electrical endurance,	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1



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423	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Over Current Device Calibration Test	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100
424	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Overload Performance	IS/IEC 60947-1 :2004+A1-2015 IS/IEC 60947-2 :2003 IS/IEC 60947-3:2012 IS/IEC 60947 - 4 - 1 ,2012 IS/IEC 60947 - 4 - 2 ,2011 IS/IEC 60947 - 5 - 1 ,2009, IEC 60947-1, 2007,A1:2010,A2:2014, IEC 60947-2, 2016:2016, IEC 60947-3, 2008,A1:2012+A2:2015 IEC 60947-4-1, 2018 , IEC 60947-4-2, 2011,IEC 60947-5-1 2016 , IEC 60947-7-1, 2009, IEC 60947-7-2, 2009 IS/IEC 60898-1, 2015, IS/IEC 60898-2, 2003, IEC 60898-1 2015, IEC 60898-2 2016 , IS 12640 : Part 1, 2016 , IS 12640 :



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425	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Performance at Rated Short Circuit Capacity	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
426	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Performance under short circuit conditions	IS/IEC-60947-1:2007+A1:2015; IS/IEC-60947-2:2016; IS/IEC-60947-3:2012; IS/IEC-60947-4-1:2012; IS/IEC-60947-4-2:2011; IS/IEC-60947-5-1:2009; IEC-60947-1:2020; IEC-60947-2:2019; IEC-60947-3:2020; IEC-60947-4-1:2018; IEC-60947-4-2:2020; IEC-60947-5-1:2016; IEC-60947-5-2:2020; IEC-60947-7-1:2009; IS/IEC-60898-1:2015; IS/IEC-60898-2:2003; IEC-60898-1:2015+A1:2019; IEC-60898-2:2016; BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:



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427	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Performance/ Behavior under short circuit conditions	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
428	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Protection Against Electric Shock (MCB/RCBO)	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100



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429	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Rated Earth Fault Breaking Current	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011+A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
430	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Rated residual making and breaking capacity	IS 12640:Part 1:2016/IEC 61008-1: 2012+A1:2016+A2:2018+A3:2018+A4:2018, IS 12640-2:2016/IEC 61009-1 : 2012+A1:2016+A2:2018+A3:2018, IEC 61008-1:2010+A1:2012+A2:2013, IEC-61008-2-1:1990, IEC-61008-2-2:1990, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011+A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:



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431	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Rated service short circuit breaking capacity	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011+A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
432	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Rated ultimate short circuit breaking capacity	IS 12640:Part 1:2016/IEC 61008-1: 2012+A1:2016+A2:2018+A3:2018+A4:2018, IS 12640-2:2016/IEC 61009-1 : 2012+A1:2016+A2:2018+A3:2018, IEC 61008-1:2010+A1:2012+A2:2013, IEC-61008-2-1:1990, IEC-61008-2-2:1990, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011+A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
433	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Reliability at 40 °C	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2



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434	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Reliability of Screws, Current carrying Parts and Connectors	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1, 2020, IEC-60947-2, 2019, IEC-60947-3, 2020, IEC-60947-4-1, 2018, IEC-60947-4-2, 2020, IEC-60947-5-1, 2016, IEC-60947-7-1, 2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008
435	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Reliability of Screws, For External Conductors	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1, 2020, IEC-60947-2, 2019, IEC-60947-3, 2020, IEC-60947-4-1, 2018, IEC-60947-4-2, 2020, IEC-60947-5-1, 2016, IEC-60947-7-1, 2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100
436	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Resistance Against Unwanted Tripping Due to Current	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2



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437	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Resistance of The Insulation Against Impulse Voltages	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
438	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Resistance to Mechanical Shock and Impact	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
439	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Sensitivity	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
440	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Service Short Circuit Capacity	IS 12640:Part 1:2016/IEC 61008-1: 2012+A1:2016+A2:2018+A3:2018+A4:2018, IS 12640-2:2016/IEC 61009-1 : 2012+A1:2016+A2:2018+A3:2018, IEC 61008-1:2010+A1:2012+A2:2013, IEC-61008-2-1:1990, IEC-61008-2-2:1990, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:



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441	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Service Short Circuit Capacity	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
442	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Shock	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
443	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit Breaking capacity at Maximum short time withstand current	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:



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444	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit at ultimate short circuit breaking capacity	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
445	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit making capacity	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:



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446	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit Performance at I500A	IS/IEC 60898-1, 2015, IS/IEC 60898-2, 2003, IEC 60898-1 2015, IEC 60898-2 2016 , IS 12640 : Part 1, 2016 , IS 12640 : 1991, IEC 61008-1, 2010 , A1-2012 , A2-2013,IEC 61008-2-1 1990, IEC 61008-2-2 1990, IEC 61009-1, 2010, A1-2012 , A2-2013 IEC 61009-2-1, 1991, IEC 61009-2-2
447	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short time withstand current	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
448	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Strength of Actuator Mechanism	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1



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Laboratory Name :	CENTRAL POWER RESEARCH INSTITUTE, SWITCHGEAR TESTING AND DEVELOPMENT STATION, GOVINDPURA, BHOPAL, MADHYA PRADESH, INDIA		
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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
449	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Switching duty test	IS/IEC 60947-1 :2004+A1-2015 IS/IEC 60947-2 :2003 IS/IEC 60947-3:2012 IS/IEC 60947 - 4 - 1 ,2012 IS/IEC 60947 - 4 - 2 ,2011 IS/IEC 60947 - 5 - 1 ,2009, IEC 60947-1, 2007,A1:2010,A2:2014, IEC 60947-2, 2016:2016, IEC 60947-3, 2008,A1:2012+A2:2015 IEC 60947-4-1, 2018 , IEC 60947-4-2, 2011,IEC 60947-5-1 2016 , IEC 60947-7-1, 2009, IEC 60947-7-2, 2009 IS/IEC 60898-1, 2015, IS/IEC 60898-2, 2003, IEC 60898-1 2015, IEC 60898-2 2016 , IS 12640 : Part 1, 2016 , IS 12640 : 19
450	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Test Device Ampere Turns	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100



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451	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Time Current Characteristics	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100
452	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Trip and non trip test	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100



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453	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of Ability to Withstand Overload Currents	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100
454	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of Marking Dimensions, Visual Examination, General and Indelibility of marking.	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2
455	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of Mechanical Propertis of Terminals	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1



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456	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of operation and operating Limits	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100
457	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of Overload Releases	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-7-1



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458	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of rated making and breaking capacities, change over ability and reversibility	IS 12640:Part 1:2016/IEC 61008-1: 2012+A1:2016+A2:2018+A3:2018+A4:2018, IS 12640-2:2016/IEC 61009-1 : 2012+A1:2016+A2:2018+A3:2018, IEC 61008-1:2010+A1:2012+A2:2013, IEC-61008-2-1:1990, IEC-61008-2-2:1990, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003 IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011 +A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
459	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of the operation of the test device at the limits of rated voltage	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC 61008-2-1:1990, IEC 61008-2-2:1990
460	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of the coordination at rated conditional residual short circuit current	IS 12640 : Part 1, 2016 , IS 12640-2 : 2016, IEC 61008-1, 2010 , A1-2012 , A2-2013,IEC 61008-2-1 1990, IEC 61008-2-2 1990, IEC 61009-1, 2010, A1-2012 , A2-2013 IEC 61009-2-1, 1991, IEC 61009-2-2
461	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Voltage Drop/Effective Earthing	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IS/IEC-60947-6-1, 2013, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-6-1,2013, IEC-60947-7-1



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462	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	withstand overload current	IS/IEC-60947-1:2007+A1:2015, IS/IEC-60947-2:2016, IS/IEC-60947-3:2012, IS/IEC-60947-4-1:2012, IS/IEC-60947-4-2:2011, IS/IEC-60947-5-1:2009, IS/IEC-60947-6-1:2013, IEC-60947-1:2020, IEC-60947-2:2019, IEC-60947-3:2020, IEC-60947-4-1:2018, IEC-60947-4-2:2020, IEC-60947-5-1:2016, IEC-60947-6-1:2021, IEC-60947-7-1:2009, IS/IEC-60898-1:2015, IS/IEC-60898-2:2003, IEC-60898-1:2015+A1:2019, IEC-60898-2:2016, BSEN:60947-1:2007+A1:2011+A2:2014; BSEN:60947-2:2017+A1:2020; BSEN:60947-3:2009+A1:2012; +A2:
463	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear / LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Mechanical strength	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2



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464	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear / LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Resistance to Rusting	IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2, 1990, IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
465	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear / LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Lightning Impulse Voltage Withstand	IS/IEC-60947-1, 2007, IS/IEC-60947-2, 2016, IS/IEC-60947-3, 2012, IS/IEC-60947-4-1, 2012, IS/IEC-60947-4-2, 2011, IS/IEC-60947-5-1, 2009, IS/IEC-60947-6-1, 2013, IEC-60947-1,2020, IEC-60947-2,2019, IEC-60947-3,2020, IEC-60947-4-1,2018, IEC-60947-4-2,2020, IEC-60947-5-1,2016, IEC-60947-6-1,2013, IEC-60947-7-1,2009, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-6100



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466	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear / LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Temperature Rise (upto 10KA)	IS/IEC 60947-1 :2004 IS/IEC 60947-2 :2003 IS/IEC 60947-3:1999 IS/IEC 60947 - 4 - 1 2000 IS/IEC 60947 - 5 - 1 2001 IEC 60947-1 (2007-06) IEC 60947-2 (2009-05) IEC 60947-2-A1 (2009-01) IEC 60947-3 (2008-08) IEC 60947-4-1 (2009-09) IEC 60947-4-2 A1+A2 (2007) IEC 60947-5-1 (2003-11)A1 IEC 60947-6-1,1998, IEC 60947-7,1989, IEC 60947-7-1, 2002, IS/IEC 60898-1 2002 IS/IEC 60898-2 2003 IEC 60898-1 A1 + A2 (2003-07) IEC 60898-2 A1 (2003-07) IS 12640 : Part 1 2008 IS 12640 : Part 2 2008 IEC 61008
467	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear / LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Resistance to heat	IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016,IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61008-2-1, 1990, IEC-61008-2-2, 1990,IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010, +A1,2013+A2, 2019, IEC-60269-4, 2009+ A1



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468	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L.V, Circuit Breaker & Swichgear Panel With Circuit	Resistance Rise Circuit	IS/IEC 62271 (Part 1) IS/IEC 62271 (Part 100) IS/IEC 62271 (Part 200) IS/IEC 62271 (Part 203) IS 12729 ; IEC 60694 IS 1427; IEC 298 IS 14659 ; IEC 60466 IEC 62271-100 IEC 62271-1 IEC 62271-110 IEC 62271-201 IEC-60529 ; IEC / TR 62271-308 IEC 62271-200 IEC 62271-202 IEC 62271-203 IEC 60077-1; IEC 60077-2 IEC 60077-4; BS 6581; IEC 60694; IEEE C 37-09
469	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L.V, Circuit Breaker & Switchgear Panel With Circuit / LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut-outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Resistance test / Resistance Rise Test	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010, +A1, 2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2, 2016, IS-9926, 1981, IS/IEC-60898-1, 2015, IS/IEC-60898-2, 2003, IEC-60898-1, 2015+A1, 2019, IEC-60898-2, 2016, IS-12640-1, 2016 + A4, 2018, IS-12640-2, 2016, +A3, 2018, IEC-61008-1, 2013 (CSV), IEC-61
470	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Protection Against Electric Shock	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IS-7657-1, 1975, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010, +A1, 2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2



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471	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Re-wirable type fuses, fuses (cut- outs) Auxiliary terminal blocks interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Measurement of Resistance	IS 13703-2-1:1993; IS 13703-2-1:1993;IS 13703-2-2:1993; IS 13703-4:1993; IS 2086:1993+A1-1997; IS 10027: 2018; IS/IEC 60269-1:2014; IS/IEC 60269-2:2016; IS/IEC 60269-3:2010;IEC 60269-1:2006+A1.2009+A2.2014; IEC 60269-2: 2013+A1-2016; IEC 60269-3:2010+A1.2013+A2-2019; IEC 60269-4:2009+A1.2012; BSEN 60269-1:2007+A2:2014 /BS88-1:2007+A2.2014; BSHD 60269-2:2013/BS 88-2: 2013; BSHD 60269-3 2010+A1 2013/BS 88-3: 2010; BSEN 60269-4:2009 +A1.2012+A2-2016/BS 88-4:2009+A1:2012; BS 7657:
472	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Re-wirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Measurement of Insulation Resistance	IS 13703-2-1:1993/IEC 269-2:1986, IS 13703-2-2:1993/IEC 269-2:1987 , IS 13703-4:1993/IEC 269-4:1980 , IS/IEC 60269-3:2010, IS 2086:1993+A1.1997, IS 10027:2018, IEC 60269-1:2006+A1:2009+A2:2014, IEC 60269-2:2013+A1:2016, IEC 60269-3:2010+A1:2013+A2:2019, IEC 60269-4:2009+A1:2012+A2:2016, BSEN 60269-1:2007+A2:2014/BS88-1:2007+A2 2014, BSEN 60269-4:2009+A2:2016/BS 88-4,2009+A1:2012, BS 7657



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473	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Conventional fusing and non-fusing current test	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
474	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Conventional Time and current	IS 9926, 1981
475	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Electric Endurance	IS 9926, 1981
476	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Performance Under Short Circuit Conditions	IS 13703-2-1:1993; IS 13703-2-1:1993; IS 13703-2-2:1993; IS 13703-4:1993; IS 2086:1993+A1-1997; IS 10027: 2018; IS/IEC 60269-1:2014; IS/IEC 60269-2:2016; IS/IEC 60269-3:2010;IEC 60269-1: 2006+A1.2009+A2.2014; IEC 60269-2: 2013+A1-2016; IEC 60269-3:2010+A1.2013+A2-2019; IEC 60269-4: 2009+A1.2012; BSEN 60269-1:2007+A2:2014 /BS88-1:2007+A2.2014; BSHD 60269-2:2013/BS 88-2: 2013; BSHD 60269-3 2010+A1 2013/BS 88-3: 2010; BSEN 60269-4:2009 +A1.2012+A2-2016/BS 88-4:2009+A1:2012; BS 7657



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477	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Verification of Breaking Capacity	IS 13703-2-1:1993/IEC 269-2:1986, IS 13703-2-2:1993/IEC 269-2:1987, IS 13703-4:1993/IEC 269-4:1980, IS/IEC 60269-3:2010, IS 2086:1993+A1.1997, IS 10027:2018, IEC 60269-1:2006+A1:2009+A2:2014, IEC 60269-2:2013+A1:2016, IEC 60269-3:2010+A1:2013+A2:2019, IEC 60269-4:2009+A1:2012+A2:2016, BSEN 60269-1:2007+A2:2014/BS88-1:2007+A2 2014, BSEN 60269-4:2009+A2:2016/BS 88-4:2009+A1:2012, BS 7657
478	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Verification of I ₂ t characteristics and overcurrent discrimination	IS 13703 (Part 1), 1993 IS 13703(Part 2/ Sec 1), 1993 IS 13703 (Part 2 /Sec 2), 1993 IS 13703(Part 4), 1993 IS 8187 : 1976 A1 , 1980 IS 2086, 1993 A1, 1997 IS 10027 : 2000 IEC 60269-1, 2006, A1-2009, A2-2014 IEC 60269-2, 2013 IEC 60269-3, 2010 + A1-2013 IEC 60269-4, 2009 +A1-2012 BSEN 60269-1:2007+A2 2014/ BS 88-1:2007 +A2 2014 BSHD 60269-2:2010/ BS 88-2 :2010 BSHD 60269-3:2010 +A1 2013/ BS 88-3:2010 BSHD 60269-4:2009 + A1 2012, BS 88-4:2009 + A1 2012 BS 7657



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479	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Verification of the cut-off current characteristics	IS 13703-2-1:1993; IS 13703-2-1:1993;IS 13703- 2-2:1993; IS 13703-4:1993; IS 2086:1993+A1-1997; IS 10027: 2018; IS/IEC 60269-1:2014; IS/IEC 60269-2:2016; IS/IEC 60269-3:2010;IEC 60269-1: 2006+A1.2009+A2.2014; IEC 60269-2: 2013+A1-2016; IEC 60269-3:2010+A1.2013+A2-2019; IEC 60269-4: 2009+A1.2012; BSEN 60269-1:2007+A2:2014 /BS88-1:2007+A2. 2014; BSHD 60269-2:2013/BS 88-2: 2013; BSHD 60269-3 2010+A1 2013/BS 88-3: 2010; BSEN 60269-4:2009 +A1.2012+A2-2016/BS 88-4:2009+A1:2012; BS 7657: 2010
480	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Rated current test	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
481	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Freedom from seasonal cracking	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2



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482	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Resistance to Heat	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IS-7657-1, 1975, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
483	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Degree of Protection	IS-13703-2-1, 1993, IEC 6052-2013, IS/IEC 60529-2001 IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
484	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Mechanical Endurance	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2



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485	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Mechanical Strength of Fuse Holder	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
486	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Non-deterioration of insulating parts of fuse links, fuse base and contacts	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IS-7657-1, 1975, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
487	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Temperature Cycle	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2



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488	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Time Current Characteristics	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
489	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Verification of the insulating properties	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
490	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Visual Examination -- Ambient Temperature measurement of fuse and dimensional measurement of fuse wire	IS 9926 : 1981, IS 2086 : 1993
491	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Water Absorption (Non Ceramic)	IS-2086, 1993+A1
492	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Withdrawal Force	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018,IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2, 2016, IS-9926



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493	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Dimensions	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2, 2016, IS-9926
494	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Insulation resistance (at max 1000V)	IS 13703-2-1:1993; IS 13703-2-1:1993;IS 13703-2-2:1993; IS 13703-4:1993; IS 2086:1993+A1-1997; IS 10027: 2018; IS/IEC 60269-1:2014; IS/IEC 60269-2:2016; IS/IEC 60269-3:2010;IEC 60269-1: 2006+A1.2009+A2.2014; IEC 60269-2: 2013+A1-2016; IEC 60269-3:2010+A1.2013+A2-2019; IEC 60269-4: 2009+A1.2012; BSEN 60269-1:2007+A2:2014 /BS88-1:2007+A2.2014; BSHD 60269-2:2013/BS 88-2: 2013; BSHD 60269-3 2010+A1 2013/BS 88-3: 2010; BSEN 60269-4:2009 +A1.2012+A2-2016/BS 88-4:2009+A1:2012; BS 7657
495	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Temperature Rise	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2



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496	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Water Absorption on Ceramic Material	IS 2086:1993+A1
497	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxiliary terminal blocks & interconnecting units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Overload test	IS-13703-2-1, 1993, IS-13703-2-2, 1993, 13703-4, 1993, IS/IEC-60269-1, 2014, IS/IEC-60269-2, 2016, IS/IEC-60269-3, 2010, IS-2086, 1993+A1, 1997, IS-10027, 2018, IEC-60269-1, 2006+A1, 2009+A2, 2014, IEC-60269-2, 2013+A1, 2016, IEC-60269-3, 2010,+A1,2013+A2, 2019, IEC-60269-4, 2009+ A1, 2012+A2
498	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV Switchgear and Control gear Assemblies	Arc Fault Test	IEC/TR:61641:2014; IS/IEC:61439-2:2011; IEC:61439-2
499	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Motor Terminal Box	Internet Arc Fault	As per CPRI DOCUMENT: TEST OPERATING PROCEDURE STATION - 1 (TOP-1) Issue no. 7 dated 05.08.
500	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Motor Terminal Box	Through Fault Current	As per CPRI DOCUMENT: TEST OPERATING PROCEDURE STATION - 1 (TOP-1) Issue no. 7 dated 05.08
501	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Pre-Fabricated Substation	Internal Arc Test	IEC 62271-202:2022; IS/IEC 62271-202
502	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Pre-Fabricated substation	Short-time withstand current and peak withstand current test	IEC 62271-202:2022; IS/IEC 62271-202:
503	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Rewirable Fuse	Temperature cycle test	IS-2086, 1993+A1
504	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Short Time Current	IS/IEC 60137:2017, IS 7421:1988, IS 5561 2018, IS/IEC 62155: 2003, IS/IEC 60168: 2000, IS 731:1971+A5.1987,+A6.1993,+A7



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505	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, Power connectors, Insulators	Visual inspection and dimensional check	IS/IEC 60137:2017, IS 7421:1988, IS 5561:2018, IS/IEC 62155:2003, IS/IEC 60168:2000, IS 731:1971, IEC 60273
506	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	HV power frequency test (dry & wet)	IS/IEC 60137:2017, IS 7421:1988, IS 5561:2018, IS/IEC 62155:2003, IS/IEC 60168:2000, IS 731:1971, IEC 60273
507	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Lightning impulse Test & Switching Impulse	IS/IEC 60137:2017, IS 7421:1988, IS 5561:2018, IS/IEC 62155:2003, IS/IEC 60168:2000, IS 731:1971, IEC 60273
508	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, Power connectors, Insulators	puncture	IS/IEC 60137:2017, IS 7421:1988, IS 5561:2018, IS/IEC 62155:2003, IS/IEC 60168:2000, IS 731:1971, IEC 60273
509	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Routine test -- Dry lightning impulse voltage withstand test, Dry power-frequency voltage withstand test	IS/IEC 60137:2017, IS 7421:1988, IS 5561:2018, IS/IEC 62155:2003, IS/IEC 60168:2000, IS 731:1971, IEC 60273
510	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, Power connectors, Insulators	Switching Impulse Voltega (Dry) (upto 220 kV class)	IEC 60137:2008, IS/IEC 60137:2017 IEEE C57.19.01
511	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Temperature rise test	IS/IEC 60137:2017, IS 7421:1988, IS 5561:2018, IS/IEC 62155:2003, IS/IEC 60168:2000, IS 731:1971, IEC 60273
512	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, Power connectors, Insulators	Verification of Dimensions	IS/IEC 60137:2017, IS 7421:1988, IS 5561:2018, IS/IEC 62155:2003, IS/IEC 60168:2000, IS 731:1971, IEC 60273
513	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Hollow Insulator Post Insulator (Indoor/ Potdoor) Upto 400 KV Rating	Impulse Voltage Withstand	IS/IEC 62155:2003, IS 5350(part-1):1970, IS 5350(part-2):1973, IS 5350(part-3):1971



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514	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Insulator Strings	Power Arc Test	IEC 61467
515	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Line Traps	Short Time Current	IS: 8792-1995; IS:8793-1995; IEC:60353-1989+A1
516	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Neutral Grounding Resistor Units	Short Time Current	As per CPRI DOCUMENT: TEST OPERATING PROCEDURE STATION - 1 (TOP-1) Issue No.7 dated 05.08.2020; IEEE Std C57.32
517	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Neutral Grounding Resistor Units	Temperature Rise	As per CPRI DOCUMENT: TEST OPERATING PROCEDURE STATION - 1 (TOP-1) Issue No.7 dated 05.08.2020; IEEE Std 32
518	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load tap Changer	Breaking Capacity test	IS 8468 : Part 1 2018, IEC 60214-1
519	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Degree of Protection	IS 8468(Part-1):2018/IEC 60214-1:2014, IS/IEC 60947-1:2004, IS/IEC60529:2001, IEC 60214-1,2014 , IEC/IEEE 60214-2:2019 ,IEC 60947-1:2020, ,IEC 60529
520	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	High Voltage	IS 8468(Part-1):2018/IEC 60214-1:2014, IS/IEC 60947-1:2004, IS/IEC60529:2001, IEC 60214-1,2014 , IEC/IEEE 60214-2:2019 ,IEC 60947-1:2020, ,IEC 60529
521	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Lightning Impulse Test (Upto 330 KV class	IS 8468(Part-1):2018/IEC 60214-1:2014, IS/IEC 60947-1:2004, IS/IEC60529:2001, IEC 60214-1,2014 , IEC/IEEE 60214-2:2019 ,IEC 60947-1:2020, ,IEC 60529



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522	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Mechanical Endurance	IS 8468(Part-1):2018/IEC 60214-1:2014, IS/IEC 60947-1:2004, IS/IEC60529:2001, IEC 60214-1,2014 , IEC/IEEE 60214-2:2019 ,IEC 60947-1:2020, ,IEC 60529
523	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Mechanical Test	IS 8468(Part-1):2018/IEC 60214-1:2014, IS/IEC 60947-1:2004, IS/IEC60529:2001, IEC 60214-1,2014 , IEC/IEEE 60214-2:2019 ,IEC 60947-1:2020, ,IEC 60529
524	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Service Duty Tests	IS 8468 : Part 1 2018, IEC 60214-1
525	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Short Circuit Current	IS 8468 : Part 1 : 2018/IEC 60214-1 : 2014; IEC 60214-1:2014; IEC/IEEE 60214-2
526	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Temperature Rise Test (upto 25 KA)	IS 8468(Part-1):2018/IEC 60214-1:2014, IS/IEC 60947-1:2004, IS/IEC60529:2001, IEC 60214-1,2014 , IEC/IEEE 60214-2:2019 ,IEC 60947-1:2020, ,IEC 60529
527	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Transition Impedance	IS 8468 : Part 1 2018, IEC 60214-1
528	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Spacers for Bundle Conductor	Fault Current	IS 10162:1982+A.No.1
529	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Surge Arrester for alternating current systems upto 400 kV rating	Switching impulse voltage test on arrester housing (Dry)	IS 8468(Part-1):2018/IEC 60214-1:2014, IS/IEC 60947-1:2004, IS/IEC60529:2001, IEC 60214-1,2014 , IEC/IEEE 60214-2:2019 ,IEC 60947-1:2020, ,IEC 60529



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530	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Surge Arrester for alternating current systems upto 400 kV rating	Lightning impulse voltage test on arrester housing (Dry)	IS 8468(Part-1):2018/IEC 60214-1:2014, IS/IEC 60947-1:2004, IS/IEC60529:2001, IEC 60214-1,2014 , IEC/IEEE 60214-2:2019 ,IEC 60947-1:2020 ,IEC 60529
531	ELECTRICAL- TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Surge Arresters	Short Circuit Test	IS 15086 /Part 4 : 2017 / IEC 60099-4 : 2014, IEC 60099-4, 2014; IEC 60099-5, 2018; IEEE C62.11: