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 111

Validity 10/06/2019 to 09/06/2021* **Last Amended on** 15/06/2020

*The validity is extended for one year up to 09.06.2022

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	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	Breakdown voltage	IS 1866:2017 / IEC 60422:2013, IEC 60156
4	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Density	IS 1866:2017 / IEC 60422:2013, ISO 3675
5	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Dielectric dissipation factor (DDF) at 90ºC	IS 1866:2017 / IEC 60422:2013, IEC 60247
6	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
7	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
8	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
9	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Resistivity at 90ºC	IS 1866:2017 / IEC 60422:2013, IEC 60247
10	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:
11	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Viscosity	IS 1866:2017 / IEC 60422:2013, ISO 3104
12	CHEMICAL- PETROLEUM AND PRODUCTS	Mineral Insulating Oil in Electrical Equipment Supervision and Maintenance Guidance	Water Content	IS 1866:2017 / IEC 60422:2013, IEC 60814
13	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Acidity	IS 335-2018, IEC 60296- 2012 , IEC 62021-1
14	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Appearance	IS 335-2018, IEC 60296
15	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Breakdown voltage	IS 335-2018, IEC 60296- 2012, IS 6792 2017 IEC 60156
16	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Density at 20ºC	IS 335-2018, IEC 60296- 2012, IS 1448 (Part 16) 2014, ISO 3675

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17	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Dielectric dissipation factor (DDF) at 90 ºC	IS 335-2018, IEC 60296- 2012, IS 16086 2013, IEC 60247 2004, or IEC 61620
18	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Flash Point	IS 335-2018, IEC 60296- 2012, IS 1448 (Part 21) – A 2012, ISO 2719 – A
19	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Interfacial Tension	IS 335-2018, IEC 60296- 2012, ASTM D971
20	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Particle Content	IS 335-2018, IEC 60296- 2012, IS 13236 2013 /IEC 60970
21	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Viscosity * at 40ºC	IS 335-2018, IEC 60296- 2012, IS 1448 (Part 25) 1996, ISO 3104
22	CHEMICAL- PETROLEUM AND PRODUCTS	New Mineral Insulating Oils	Water Content	IS 335-2018, IEC 60296- 2012, IEC 60814
23	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled Electrical Equipment	Dissolved Gas Analysis/ Gas Content CH4	IS 9434 1992, IEC 60567 2011, IS10593 2006, 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 C2H6	IS 9434 1992, IEC 60567 2011, IS10593 2006, 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 C3H6	IS 9434 1992, IEC 60567 2011, IS10593 2006, 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 TDCG	IS 9434 1992, IEC 60567 2011, IS10593 2006, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106

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27	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled Electrical Equipment	Dissolved Gas Analysis/ Gas Content C2H2	IS 9434 1992, IEC 60567 2011, IS10593 2006, 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 electrical equipment	Dissolved Gas Analysis/ Gas Content CO	IS 9434 1992, IEC 60567 2011, IS10593 2006, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
29	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content CO2	IS 9434 1992, IEC 60567 2011, IS10593 2006, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
30	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content H2	IS 1866:2017, IEC 60422:2013, IS 335-2018, IEC 60296-2012, IS 9434 1992, IEC 60567 2011, IS10593 2006, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
31	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content N2	IS 1866:2017, IEC 60422:2013, IS 335-2018, IEC 60296- 2012, IS 9434 1992, IEC 60567 2011, IS10593 2006, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
32	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content O2	IS 9434 1992, IEC 60567 2011, IS10593 2006, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106

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33	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electrical equipment	Dissolved Gas Analysis/ Gas Content TGC	IS 9434 1992, IEC 60567 2011, IS10593 2006, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009, (Method C)/ IEEE Std C57.106
34	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled Electrical Equipment.	Dissolved Gas Analysis/ Gas Content C2H4	IS 9434 1992, IEC 60567 2011, IS10593 2006, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
35	CHEMICAL- PETROLEUM AND PRODUCTS	Oil filled electricals eqipment	Dissolved Gas Analysis/ Gas Content C3H8	IS 9434 1992, IEC 60567 2011, IS10593 2006, IEC 60599 2015, IS 16085 2013, IEC 61181 2007, ASTM D3612 2009 (Method C)/ IEEE Std C57.106
36	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;	Stray d.c. magnetic induction of external origin 67 mT	IS 13779, 1999, Amd.1 to 5, Clause 12.11 IS 14697, 1999, Amd.1 to 4, Clause 12.10 CBIP R.Publication : 325, 2015, Clause 5.6.2.1 IS15884, 2010, Clause 4.6.2 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2) : 2017, Clause. 6.12 CBIP R.Publication : 304, 2008, Clause 5.6.2.2
37	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;	Electrostatic Discharge	IS 13779, 1999, Amd.1 to 5 Clause. 12.9.2 IEC 62052-11, 2003, Amd.1,2016, Clause. 7.5.2 IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1,2016, IEC 62053-23, 2003, Amd.1,2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.8.2 CBIP R.Publication : 325,2015 Clause. 5.5.2 IS15884,2010 , Clause. 5.5.2 IEC 62055 -31,2005, Clause. 7.8.2 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017 Clause. 6.11 IS 16444 (Part 2) : 2017 Clause. 6.11

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38	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;	Limits of error	IS 13779, 1999, Amd.1 to 5, Clause 11.1 IEC 62052-11, 2003, Amd.1, 2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 8.1 IEC 62053-22, 2003, Amd.1, 2016, Clause.8.1 IEC 62053-23, 2003, Amd.1, 2016, Clause.8.1 IEC 62053-24, 2014, Amd.1, 2016, Clause.8.2 IS 14697, 1999, Amd.1 to 4, Clause 11.1 CBIP R. Publication : 325, 2015, Clause. 5.4.6.8 IS 15884, 2010, Clause. 4.6.1 IEC 62055 -31, 2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2): 2017, Clause
39	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC static Energy Meter AC static smart meter class 1&2 and transformer operated kWh and kVArh smart meter class 0.2s , 0.5s ans 1.0s	Compliance test: 1.0 Conformance to DLMS/COSEM (IEC 62056) 2.0 Parameter verification: 2.1 SNRM/UA 2.2 Object list download 2.3 Association properties 2.4 Simultaneous operation 2.5 Security: 2.5.1 Lowest Level Security Secret 2.5.2 Low Level Security (LLS) Secret 2.5.3 High Level Security (HLS) Secret 2.6 ToU setting 2.7 Billing Period 2.8 Billing Period Counter 2.9 Parameter list: 2.9.1 (a) Instantaneous Parameters 2.9.1 (b) Snap Shot of Instantaneous Parameters 2.9.1 (c) Scaler Profile	IS 15959 (Part 1) 2011 with amend 1,2,3,4, IS 15959 (Part 2) 2016 with amend 1, IS 15959 (Part 3)

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40	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC static Energy Meter AC static smart meter class 1&2 and transformer operated kWh and kVArh smart meter class 0.2s , 0.5s ans 1.0s	Compliance test: 2.9.2 Block load profile parameters 2.9.3 Selective access by Range for Block load profile 2.9.4 Daily load profile parameters 2.9.5 Selective access by Range for Daily load profile 2.9.6 Billing profile parameters 2.9.7 Selective access by Entry for Billing profile 2.10 General Purpose parameters : 2.10.1 Name Plate Details 2.10.2 Programmable Parameters. 2.11 Event code and Event logging : 2.11.1 Indian Event Reference Table – Voltage Related	IS 15959 (Part 1) 2011 with amend 1,2,3,4, IS 15959 (Part 2) 2016 with amend 1, IS 15959 (Part 3)
41	ELECTRICAL- ELECTRICAL INDICATING & RECORDING INSTRUMENTS	AC static Energy Meter AC static smart meter class 1&2 and transformer operated kWh and kVArh smart meter class 0.2s , 0.5s ans 1.0s	Compliance test: 2.11.2 Indian Event Ref Table – Current Related 2.11.3 Indian Event Ref Table – Power Related 2.11.4 Indian Event Ref Table – Transaction Related 2.11.5 Indian Event Ref Table – Other 2.11.6 Indian Event Ref Table – Non Roll Over 2.11.7 Indian Event Ref Table – Control 2.12 Selective access by Entry for Event Log Profile. 2.13 Tests for Smart Meter communication capability 2.14 Functional Test as per table 29 and table A30	IS 15959 (Part 1) 2011 with amend 1,2,3,4, IS 15959 (Part 2) 2016 with amend 1, IS 15959 (Part 3)
42	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;	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

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43	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;	Fast transient burst	IS 13779, 1999, Amd.1 to 5, Clause. 12.9.4 IEC 62052-11, 2003, Amd.1, 2016, Clause. 7.5.4 IEC 62053-21, 2003, Amd.1, 2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1, 2016, Clause. 8.2 IEC 62053-23, 2003, Amd.1, 2016, Clause. 8.2 IS 14697, 1999, Amd. 1 to 4, Clause. 12.8.4 CBIP R.Publication : 325, 2015, Clause. 5.5.3 IS15884, 2010, Clause. 5.5.4 IEC 62055 -31, 2005, Clause. 7.8.4 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.11 IS 16444 (Part 2) : Clause. 6.11
44	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;	Odd harmonics is ac circuit	IEC 62052-11, 2003, Amd.1,2016, Clause 8.2 IEC 62053-21, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1,2016, IEC 62055 -31,2005, Clause 4.6.2
45	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;	Dielectric strength	IS15884, 2010, Clause. G8 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 7.2 IEC 62055 -31,2005, Clause Annex C8

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46	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;	Electrostatic Discharge	IS 13779, 1999, Amd.1 to 5 Clause. 12.9.2 IEC 62052-11, 2003, Amd.1,2016, Clause. 7.5.2 IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1,2016, IEC 62053-23, 2003, Amd.1,2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.8.2 CBIP R.Publication : 325,2015, Clause. 5.5.2 IS15884,2010, Clause. 5.5.2 IEC 62055 -31,2005, Clause. 7.8.2 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.11 IS 16444 (Part 2) : 2017, Clause. 6.11
47	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;	Impulse Voltage	IS 13779, 1999, Amd.1 to 5, Clause. 12.7.6.2 IEC 62052-11, 2003, Amd.1, 2016, Clause. 7.3.2 IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1, 2016, IEC 62053-23, 2003, Amd.1, 2016, IEC 62053-24, 2014, Amd.1, 2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.7.6.2 CBIP R Publication : 325, 2015, Clause. 5.4.6.2 IS 15884, 2010, Clause. 5.4.6.2 IEC 62055 -31, 2005, Clause. 7.7 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.10.6 IS 16444 (Part 2): 2017, Clause. 6.10

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48	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;	Marking of meters -Name Plate -Connection Diagrams and terminal Marking	IS 13779, 1999, Amd.1 to 5, Clause. 7.0 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1,2016, IEC 62053-23, 2003, Amd.1,2016, IEC 62053-24, 2014, Amd.1,2016, IS 14697, 1999, Amd.1 to 4, Clause. 7.0 CBIP R. Publication : 325,2015, Clause. 4.2.2.11 IS 15884, 2010, Clause. 4.2. IEC 62055 -31,2005, IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Cl.No. 6.8 of IS 16444 (Part 2) : 2017, Clause. 6.8
49	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;	Phase of auxiliary Supply changed by 120°	IS 14697, 1999,Amd.1 to 4, Clause12.10 IS 16444 (Part 2) : Clause. 6.12
50	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;	Protection against penetration of dust and water	IS 13779, 1999, Amd.1 to 5, Clause. 12.5 IEC 62052-11, 2003, Amd.1, 2016, Clause. 5.9 IEC 62053-21, 2003, Amd.1, 2016, IEC 62053-22, 2003, Amd.1, 2016, IEC 62053-23, 2003, Amd.1, 2016, IEC 62053-24, 2014, Amd.1, 2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.5 CBIP R.Publication : 325, 2015, Clause 5.2.5 IS15884, 2010, Clause 5.2.5 IEC 62055 -31, 2005, IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.5 IS 16444 (Part 2) : 2017, Clause. 6.5

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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
51	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;	Smart meter Functional Requirement	IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 11.0 IS 16444 (Part 2): 2017, Clause. 10.0
52	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;	Spring Hammer / mechanical test of meter case	IS 13779, 1999, Amd.1 to 5, Clause. 12.3.3 IEC 62052-11, 2003, Amd.1,2016, Clause. 5.2.2.1 IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1, 2016, IEC 62053-23, 2003, Amd.1, 2016, IEC 62053-24, 2014, Amd.1, 2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.3.3 CBIP R.Publication : 325, 2015, Clause. 5.2.1 IS15884, 2010, Clause. 5.2.1 IEC 62055 -31, 2005, IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.5 IS 16444 (Part 2) : 2017, Clause. 6.5
53	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;	Influence of supply Voltage	IS 13779, 1999, Amd.1 to 5, Clause. 12.7..2 IEC 62052-11, 2003, Amd.1, 2016, Clause. 7.1.2 IEC 62053-21, 2003, Amd.1, 2016, IEC 62053-22, 2003, Amd.1, 2016, IEC 62053-23, 2003, Amd.1, 2016, IEC 62053-24, 2014, Amd.1, 2016, IS 14697, 1999, Amd.1 to 4 Clause. 12.7.2 CBIP R. Publication : 325, 2015, Clause. 5.4.2 IS15884, 2010, Clause. 4.4.2&5.4.2 IEC 62055 -31, 2005, Clause. 7.2 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.10.2 IS 16444 (Part 2) : 2017, Clause. 6.10.2

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54	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 unbalance	IS 13779, 1999, Amd.1 to 5, Clause 12. 11 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1,2016, Clause 8.2 IEC 62053-23, 2003, Amd.1, 2016, Clause. 8.2 IEC 62053-24, 2014, Amd.1, 2016, Clause.8.6 IS 14697, 1999, Amd.1 to 4 , Clause 12. CBIP R.Publication : 325, 2015, Clause 4.6.3 IS 15884, 2010, Clause 4.6.2 IEC 62055 -31, 2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2) : 2017, Clau
55	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	Data Exchange Protocol - Conformance Test Tool (CTT 3.0) - DLMS Explore Tool/ Functional Evaluation Tool (FET) Meter Explore Tool Functional Evaluation Tool (FET) extended edition	IS 16444 (Part 1): 2015 and Amend. No. 1, July 2016, Clause. 10.5 IS 16444 (Part 2) : 2016, Clause. 9.4 IS 15959 (Part 1): 2011, with Amendment No. 1 July 2014, Amendment No. 2 March 2015, Amendment No. 3 January 2016 and Amendment No. 4 April, 2017. IS 15959 (Part 2): 2016 with Amendment No. 1, April 2017, IS 15959 (Part 3): 2017

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56	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	General and constructional requirements (except HDT) 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	13779, 1999, Amd.1 to 5, Clause. 6.0 IEC 62052-11, 2003, Amd.1, 2016, IEC 62053-21, 2003, Amd.1, 2016, IEC 62053-22, 2003, Amd.1, 2016, IEC 62053-23, 2003, Amd.1,2016, Clause. 6.0 IEC 62053-24, 2014, Amd.1, 2016, IS 14697, 1999, Amd.1 to 4, CBIP R.Publication : 325, 2015, Clause. 4.2.2 IS 15884, 2010, Clause. 4.1, 4.2.12.3 IEC 62055 -31, 2005, IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.2.6.3,6.6,6.7 IS 16444 (Part 2) : 2017, Clause. 6.2.6.3,6.6,6.7
57	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	Reversed phase sequence	IS 13779, 1999, Amd.1 to 5, Clause 11.1 IEC 62052-11, 2003, Amd.1, 2016, IEC 62053-21, 2003, Amd.1, 2016, Clause. 8.1 IEC 62053-22, 2003, Amd.1, 2016, Clause.8.1 IEC 62053-23, 2003, Amd.1, 2016, Clause.8.1 IEC 62053-24, 2014, Amd.1, 2016, Clause.8.2 IS 14697, 1999, Amd.1 to 4, Clause 11.1 CBIP R. Publication : 325, 2015, Clause. 5.4.6.8 IS 15884, 2010, Clause. 4.6.1 IEC 62055 -31, 2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2): 2017, Claus
58	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	Short circuit current carrying capacity	IS15884, 2010, Clause. G6 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 7.2 IEC 62055 -31,2005, Clause Annex C6

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59	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;	Abnormal a.c. magnetic induction of external Origin (10 mTesla)	IS 13779, 1999, Amd.1 to 5, Clause 12.11 IS 14697, 1999, Amd.1 to 4, Clause 12.10 CBIP R.Publication : 325, 2015, Clause. 5.6.2.4 IS15884, 2010, Clause. 5.6.2.4 IS 16444 (Part 1): 2015 and Amend. No. 1 January 2017, IS 16444 (Part 2) : 2017, Clause. 6.12 CBIP Manual 304
60	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; Frequency	Dry heat	IS 13779, 1999, Amd.1 to 5, Clause. 12.6.1 IEC 62052-11, 2003, Amd.1, 2016, Clause. 6.3.1 IEC 62053-21, 2003, Amd.1, 2016, IEC 62053-22, 2003, Amd.1, 2016, IEC 62053-23, 2003, Amd.1, 2016, IEC 62053-24, 2014, Amd.1, 2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.6.1 CBIP R.Publication : 325, 2015, Clause. 5.3.1 IS15884, 2010, Clause. 5.3.1 IEC 62055 -31, 2005, Cl. No.6.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.9 IS 16444 (Part 2) : 2017, Clause. 6.9
61	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;	Abnormal a.c. magnetic Induction of external (200m Tesla)	CBIP R.Publication : 304, 2008, Clause 5.6.2.2
62	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;	Abnormal a.c. magnetic induction of external origin (10 m Tesla)	IS 13779, 1999, Amd.1 to 5, Clause 12.11 IS 14697, 1999, Amd.1 to 4, Clause 12.10 CBIP R.Publication : 325, 2015, Clause. 5.6.2.4 IS15884, 2010, Clause. 5.6.2.4 IS 16444 (Part 1): 2015 and Amend. No. 1 January 2017, IS 16444 (Part 2) : 2017, Clause. 6.12 CBIP Manual 304

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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
63	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;	Abnormal a.c. magnetic induction of external origin (10 m Tesla)	IS 13779, 1999, Amd.1 to 5, Clause 12.11 IS 14697, 1999, Amd.1 to 4, Clause 12.10 CBIP R.Publication : 325, 2015, Clause. 5.6.2.4 IS15884, 2010, Clause. 5.6.2.4 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, IS 16444 (Part 2) : 2017, Clause. 6.12 CBIP Manual 304
64	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;	AC voltage test	IS 13779, 1999, Amd.1 to 5, Clause. 12.7.6.3 IEC 62052-11, 2003, Amd.1, 2016, Clause 7.3.3 IEC 62053-21, 2003, Amd.1, 2016, Clause. 7.4 IEC 62053-22, 2003, Amd.1, 2016, Clause. 7.4 IEC 62053-23, 2003, Amd.1, 2016, Clause. 7.4 IEC 62053-24, 2014, Amd.1, 2016, Clause. 7.5 IS 14697, 1999, Amd.1 to 4, Clause. 12.7.6.3 CBIP R. Publication : 325, 2015, Clause. 5.4.6.3 IS 15884, 2010, Clause. 5.4.6.3 IEC 62055 -31, 2005, Clause. 7.7 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.1
65	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;	Ambient temp influence	IS 13779, 1999, Amd.1 to 5, Clause 12.12 IEC 62052-11, 2003, Amd.1, 2016, IEC 62053-21, 2003, Amd.1, 2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1, 2016, Clause. 8.6 IEC 62053-23, 2003, Amd.1, 2016, Clause. 8.2 IEC 62053-24, 2014, Amd.1, 2016, Clause.8.6 IS 14697, 1999, Amd.1 to 4, Clause 12.11 CBIP R.Publication : 325, 2015, Clause 5.6.3 IS 15884, 2010, Clause 5.6.3 IEC 62055 -31, 2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2) : 2017

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66	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;	Auxiliary voltage +/- 15%	IS 14697, 1999, Amd.1 to 4, Clause 12.10 CBIP R.Publication : 325, 2015, Clause. 4.2.2.10 IS 16444 (Part 2) : 2017, Clause. 6.12
67	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;	Cold	IS 13779, 1999, Amd.1 to 5, Clause. 12.6.2 IEC 62052-11, 2003, Amd.1, 2016, Clause. 6.3.1 IEC 62053-21, 2003, Amd.1, 2016, IEC 62053-22, 2003, Amd.1, 2016, IEC 62053-23, 2003, Amd.1, 2016, IEC 62053-24, 2014, Amd.1, 2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.6.2 CBIP R.Publication : 325, 2015, Clause. 5.3.2 IS15884, 2010, Clause. 5.3.1 IEC 62055 -31, 2005, Cl. No.6.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.9 IS 16444 (Part 2) : 2017, Clause. 6.9
68	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;	Consumption based, time base charging	IS15884, 2010, Clause. 5.9 IEC 62055 -31
69	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;	Continuous abnormal dc magnetic Induction of external Origin (200/270 m Tesla)	IS 13779, 1999, Amd.1 to 5, Clause. 12.11 IS 14697, 1999, Amd.1 to 4 Clause. 12.10 CBIP R.Publication : 325, 2015, Clause. 5.6.2.2 CBIP R.Publication : 304,2008, Clause 5.6.2.2 IS15884,2010, Clause. 4.6.2 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2)

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70	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;	Continuous magnetic induction of external origin	IEC 62052-11, 2003, Amd.1,2016, Clause 8.2.4 IEC 62053-21, 2003, Amd.1,2016, Clause. 8.2.4 IEC 62053-22, 2003, Amd.1,2016, Clause. 8.6 IEC62055-31,2005, IEC62053 23,2003,Amd.1,2016, , Clause. 8.2 IEC 62053-24, 2014, Amd.1,2016 Clause.8.6
71	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;	Crystal-controlled Clocks on ac supplies	IS15884,2010, clause D- 3.2.1 IEC 62055 -31,2005, clause D-4.3.1
72	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;	Crystal-controlled Clocks on Operation Reserve	IS15884, 2010, Clause D- 3.2.2 IEC 62055 -31, 2005, Clause D-4.3.2
73	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;	damp heat cyclic	IS 13779, 1999, Amd.1 to 5, Clause. 12.6.3 IEC 62052-11, 2003, Amd.1,2016, Clause. 6.3.1 IEC 62053-21, 2003, Amd.1, 2016, IEC 62053-22, 2003, Amd.1, 2016, IEC 62053-23, 2003, Amd.1, 2016, IEC 62053-24, 2014, Amd.1, 2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.6.3 CBIP R.Publication : 325, 2015, Clause. 5.3.3 IS15884, 2010, Clause. 5.3.1 IEC 62055 -31, 2005, cl. No.6.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.9 IS 16444 (Part 2) : 2017, Clause. 6.9

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74	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;	Damped oscillatory wave immunity	IEC 62052-11, 2003, Amd.1,2016, Clause. 7.5.7 IEC 62053-21, 2003, Amd.1, 2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1, 2016,, Clause. 8.2 IEC 62053-23, 2003, Amd.1,2016, IEC 62053-24, 2014, Amd.1,2016, IEC 62055 -31,2005, Clause. 7.8.7
75	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;	DC & even harmonics in current ciruit	IS 13779, 1999, Amd.1 to 5, Clause 12.11 IEC 62052-11, 2003, Amd.1, 2016, IEC 62053-21, 2003, Amd.1, 2016, Clause. 8.2.3 IEC 62053-22, 2003, Amd.1, 2016, Clause 8.2 IEC 62053-23, 2014, Amd.1, 2016, Clause. 8.2 IEC 62053-24, 2014, Amd.1, 2016, Clause. 8.3.2 CBIP R.Publication : 325, 2015, Clause 4.6.3 IS 15884,2010, Clause 4.6.2 IEC 62055 -31,2005, Clause 4.6.3 IS 16444 (Part 1): 2015, Clause. 6.12 and Amend. No. 1, January
76	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;	Effects of Disturbances on Time Keeping	IS15884, 2010, Clause D- 4 IEC 62055 -31, 2005, Clause D- 5
77	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;	Electrical Endurance	IS15884, 2010, Clause. G3 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 7.2 IEC 62055 -31,2005, Clause Annex C3

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78	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;	Fault current making capacity	IS15884, 2010, Clause. G5 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 7.2 IEC 62055 -31, 2005, Clause Annex C5
79	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;	Frequency variation	IS 13779, 1999, Amd.1 to 5, Clause 11.12, IEC 62052-11, 2003, Amd.1, 2016, IEC 62053-21, 2003, Amd.1, 2016, Clause. 8.2, IEC 62053-22, 2003, Amd.1, 2016, Clause.8.2, IEC 62053-23, 2003, Amd.1, 2016, Clause.8.2, IEC 62053-24, 2014, Amd.1,2016, Clause.8.6, IS 14697, 1999, Amd.1 to 4, Clause 12, CBIP R. Publication : 325, 2015, Clause. 4.6.3, IS 15884, 2010, Clause. 4.6.2, IEC 62055 -31, 2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12, Clause. 6.12 IS 16444 (P
80	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;	Functional requirements	IS15884, 2010, Clause. 6.0 IEC 62055 -31,2005, Clause. 9.0
81	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;	Harmonic component in current and voltage	IEC 62052-11, 2003, Amd.1,2016, Clause 8.2 IEC 62053-21, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-23, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-24, 2014,IEC Clause. 8.2 62055 -31,2005 Clause 4.6.2

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82	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;	Immunity to conducted disturbances induced by Radio frequency field	IEC 62052-11, 2003, Amd.1,2016, Clause. 7.5.5 IEC 62053-21, 2003, Amd.1, 2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1, 2016, Clause. 8.6 IEC 62053-23, 2003, Amd.1,2016, Clause. 8.2, IEC 62053-24, 2014, Amd.1, 2016, Clause.8.6 IEC 62055 -31, 2005, Clause.7. 8.5
83	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;	Immunity to earth/phase fault/ Abnormal Voltage condition	IS 13779, 1999, Amd.1 to 5 Clause. 12.8 IEC 62052-11, 2003, Amd.1,2016, Clause. 7.4 IEC 62053-21, 2003, Amd.1, 2016, IEC 62053-22, 2003, Amd.1, 2016, IEC 62053-23, 2003, Amd.1,2016, IEC 62053-24, 2014, Amd.1, 2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.17 CBIP R.Publication : 325,2015, IS15884, 2010, IEC 62055 -31, 2005, IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.10.7 IS 16444 (Part 2) : 2017, Clause. 6.10.7
84	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;	Immunity to electromagnetic HF/RF Flelds	IS 13779, 1999, Amd.1 to 5, Clause. 12.9.3 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1,2016, Clause. 8.6 IEC 62053-23, 2003, Amd.1,2016,, Clause. 8.2 IEC 62053-24, 2014, Amd.1,2016, Clause.8.6 IS 14697,1999, Amd.1 to 4, Clause. 12.8.3 IS15884,2010, Clause. 5.5.3 IEC 62055 -31,2005, Clause. 7.8.3 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.11 IS 16444 (Part 2) : 2017, Clause. 6.11

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85	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;	Influence of heating	IS 13779, 1999, Amd.1 to 5 Clause. 12.7.4 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 7.3 IEC 62053-22, 2003, Amd.1, 2016, Clause. 7.3 IEC 62053-23, 2003, Amd.1,2016, Clause. 7.3 IEC 62053-24, 2014, Amd.1, 2016, Clause. 7.4 IS 14697, 1999, Amd.1 to 4, Clause. 12.7..4 CBIP R.Publication : 325, 2015, Clause. 5.4.4 IS15884, 2010, Clause. 5.4.4 IEC 62055 -31, 2005, Clause. 7.6 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.10.4 IS 16444 (Part 2) : 20
86	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;	Influence of heating	IS 13779, 1999, Amd.1 to 5 Clause. 12.7.5 IEC 62052-11, 2003, Amd.1, 2016, Clause. 7..2 IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1,2016, IEC 62053-23, 2003, Amd.1,2016, IEC 62053-24, 2014, Amd.1,2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.7.5 CBIP R.Publication : 325, 2015, Clause. 5.4.5 IS15884, 2010 , Clause. 5.4.5 IEC 62055 -31, 2005, Clause. 7.5 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.10.5 IS 16444 (Part 2) : 2017, Clause. 6.10.5

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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
87	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;	Influence of self heating	IS 13779, 1999, Amd.1 to 5, Clause. 12.7.4 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 7.3 IEC 62053-22, 2003, Amd.1, 2016, Clause. 7.3 IEC 62053-23, 2003, Amd.1, 2016, Clause. 7.3 IEC 62053-24, 2014, Amd.1, 2016, Clause. 7.4 IS 14697, 1999, Amd.1 to 4, Clause. 12.7..4 CBIP R.Publication : 325,2015, Clause. 5.4.4 IS15884, 2010, Clause. 5.4.4 IEC 62055 -31, 2005, Clause. 7.6 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.10.4 IS 16444 (Part 2) : 2
88	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;	Insulation test	IS 13779, 1999, Amd.1 to 5, Clause12.7.6.4 IS 14697, 1999, Amd.1 to 4, Clause 12.7.6.4 CBIP R Publication : 325, 2015, Clause. 5.4.6.4 IS 15884, 2010, Clause. 5.4.6.1 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.10.6 IS 16444 (Part 2): 2017, Clause. 6.10.6
89	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;	Limits of error & Interpretion of test Results	IS 13779, 1999, Amd.1 to 5, Clause 11.1 IEC 62052-11, 2003, Amd.1, 2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 8.1 IEC 62053-22, 2003, Amd.1,2016, Clause.8.1 IEC 62053-23, 2003, Amd.1,2016, Clause.8.1 IEC 62053-24, 2014, Amd.1, 2016, Clause.8.2 IS 14697, 1999, Amd.1 to 4, Clause 11.1 CBIP R. Publication : 325, 2015, Clause. 5.4.6.8 IS 15884, 2010, Clause. 4.6.1 IEC 62055 -31, 2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2): 2017, Clause.

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90	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;	Line to Load Voltage Surge Withstand	IS15884,2010, Clause. G4 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 7.2 IEC 62055 -31,2005, Clause Annex C4
91	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;	Load Switching capacity	IS15884,2010, Cl.No. 4.6.6.2 IEC 62055 -31,2005, Clause. 7.9 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 7.2
92	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;	Magnetic induction of external origin (0.5mT)	IS 13779, 1999, Amd.1 to 5 Clause 12.11 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1,2016, Clause. 8.6 ,IEC 62053-23, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-24, 2014, Amd.1, 2016, Clause.8.6 IS 14697, 1999, Amd.1 to 4, Clause 12.10 IS15884,2010, Clause 4.6.2 IEC 62055 -31,2005, CBIP R.Publication : 325,2015, Clause no.5.6.2.3 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2) : 2017, Clause. 6.12

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93	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;	Meter constant	IS 13779, 1999, Amd.1 to 5, Clause 12.15 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 8.4 IEC 62053-22, 2003, Amd.1,2016, Clause. 8.4 IEC 62053-23, 2003, Amd.1,2016, Clause. 8.4 IEC 62053-24, 2014, Amd.1,2016, Clause.8.5 IS 14697,1999, Amd.1 to 4, Clause 12.14 CBIP R.Publication : 325,2015, Clause. 5.4.6.6 IS 15884,2010, Clause. 5.6.5 IEC 62055 -31,2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2) : 2017, Clau
94	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;	Minimum Switched Current	IS15884,2010, Clause. G7 IS 16444 (Part 1): 2015, Clause. 7.2 and Amend. No. 1, January 2017, IEC 62055 -31,2005, Clause Annex C7
95	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;	No load condition	IS 13779, 1999, Amd.1 to 5, Clause 12.13 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 8.3.2 IEC 62053-22, 2003, Amd.1, 2016, Clause 8.3.2 IEC 62053-23, 2003, Amd.1,2016, Clause 8.3.2 IEC 62053-24, 2014, Amd.1,2016, Clause.8.4.3 IS 14697, 1999, Amd.1 to 4, Clause 12.12 CBIP R.Publication : 325, 2015, Clause. 5.6.4 IS 15884, 2010, Clause. 5.6.3 IEC 62055 -31, 2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2) : 20

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96	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;	Normal Operation	IS15884, 2010, Clause. G2 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 7.2 IEC 62055 -31, 2005, Clause Annex C2
97	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;	Phase of auxillary supply changed by Power	IS 14697, 1999, Amd.1 to 4, Clause 12.10 IS 16444 (Part 2) : 2017, Clause. 6.12
98	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;	Power Consumption	IS 13779, 1999, Amd.1 to 5, Clause 12.7.1 IEC 62052-11, 2003, Amd.1,2016, Clause. 7.1 IEC 62053-21,2003, Amd.1,2016, Clause. 7.1 IEC 62053-22, 2003, Amd.1,2016, Clause. 7.1 IEC 62053-23, 2003, Amd.1,2016, Clause. 7.1 IEC 62053-24, 2014, Amd.1,2016, Clause. 7.2 IS14697,1999, Amd.1 to 4, Clause12.7.1 CBIP R.Publication : 325, 2015, Clause 5.4.1 IS15884, 2010, Clause 5.4.1 IEC 62055 -31,2005, Clause. 7.3 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.10.1 IS 16444 (Part 2)
99	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;	Radio Interference Conducted emission	IS 13779, 1999, Amd.1 to 5 Clause. 12.9 IS 14697, 1999, Amd.1 to 4, Clause. 12.8.5 CBIP R.Publication : 325,2015, Clause. 5.5.5 IS 16444 (Part 2) : 2017, Clause. 6.11

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100	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;	Radio Interference Radiated emission	IS 13779, 1999, Amd.1 to 5 Clause. 12.9 IS 14697, 1999, Amd.1 to 4, Clause. 12.8.5 CBIP R.Publication : 325, 2015, Clause. 5.5.5 IS 16444 (Part 2) : 2017, Clause. 6.11
101	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;	Repeatability of Error	IS 13779, 1999, Amd.1 to 5, Clause 12.17 IS 14697, 1999, Amd.1 to 4 Clause 12.16 CBIP R.Publication : 325,2015, Clause 5.6.9 IS 15884,2010, Clause 5.6.7 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2) : 2017, Clause. 6.12
102	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;	Resistance to heat & fire	IS 13779, 1999, Amd.1 to 5, Clause. 12.4 IEC 62052-11, 2003, Amd.1,2016, Clause. 6.3.2 IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1,2016, IEC 62053-23, 2003, Amd.1,2016, IEC 62053-24, 2014, Amd.1,2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.4 CBIP R.Publication : 325,2015, Clause. 5.2.4 IS15884, 2010, Clause. 5.2.4 IEC 62055 -31,2005, IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.5 IS 16444 (Part 2) : 2017, Clause. 6.5

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103	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;	Shock	IS 13779, 1999, Amd.1 to 5, Clause. 12.3.1 IEC 62052-11, 2003, Amd.1,2016, Clause. 5.2.2.2 IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1,2016, IEC 62053-23, 2003, Amd.1,2016, IEC 62053-24, 2014, Amd.1,2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.3.1 CBIP R. Publication : 325,2015, Clause. 5.2.2 IS15884,2010, Clause. 5.2.2 IEC 62055 -31,2005, Clause. 5.2.2 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.5 IS 16444 (Part 2) : 2017, Clause. 6.5
104	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;	Short time over current	IS 13779, 1999, Amd.1 to 5, Clause. 12.7.3 IEC 62052-11, 2003, Amd.1, 2016, IEC 62053-21, 2003, Amd.1, 2016, Clause. 7.2 IEC 62053-22, 2003, Amd.1, 2016, Clause. 7.2 IEC 62053-23, 2003, Amd.1, 2016, Clause. 7.2 IEC 62053-24, 2014, Amd.1, 2016, Clause. 7.3 IS 14697, 1999, Amd.1 to 4 Clause. 12.7.3 CBIP R.Publication : 325,2015, Clause. 5.4.3 IS15884, 2010, Clause. 4.4.3 IEC 62055 -31, 2005, Clause. 7.4 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.10.3 IS 16444 (Part 2) :

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105	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;	Starting Condition, Initial start of the meter	IS 13779, 1999, Amd.1 to 5, Clause 11.1 IEC 62052-11, 2003, Amd.1, 2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 8.1 IEC 62053-22, 2003, Amd.1,2016, Clause.8.1 IEC 62053-23, 2003, Amd.1,2016, Clause.8.1 IEC 62053-24, 2014, Amd.1,2016, Clause.8.2 IS 14697, 1999, Amd.1 to 4, Clause 11.1 CBIP R. Publication : 325, 2015, Clause. 5.4.6.8 IS 15884, 2010, Clause. 4.6.1 IEC 62055 -31, 2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2): 2017, Clause.
106	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;	Stray d.c. magnetic induction of external origin 0.5mT	CBIP R.Publication : 304,2008, Clause 5.6.2.2
107	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;	Sub harmonic in ac current circuit	IEC 62052-11, 2003, Amd.1,2016, Clause 8.2 IEC 62053-21, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-23, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-24, 2014, IEC Clause. 8.2 62055 -31,2005, Clause 4.6.2

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108	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;	Surge immunity	IEC 62052-11, 2003, Amd.1,2016, Clause. 7.5.6 IEC 62053-21, 2003 Amd.1,2016, IEC 62053-22, 2003, Amd.1,2016, IEC 62053-23, 2003, Amd.1,2016, IS15884,2010 Clause. 5.5.7 IEC 62055 -31,2005, Clause. 7.8.6 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017 Clause. 6.11 IS 16444 (Part 2) : 2017 Clause. 6.11
109	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;	Test for Smart Meter Communicability (Equipment Type Approval (ETA) of modules for WAN/NAN/HD shall be approved by designated agency authorized by DoT)	IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017 Clause. 10.6.2 IS 16444 (Part 2) : 2017 Clause. 9.5.2
110	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;	Verification of anti-tamper Features	CBIP R.Publication : 325,2015, Cl no 6.7 IS14697,1999, Amd.1 to 4
111	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;	Verification of Marking	IS 13779, 1999, Amd.1 to 5, Clause. 7.0 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1,2016, IEC 62053-23, 2003, Amd.1,2016, IEC 62053-24, 2014, Amd.1,2016, IS 14697, 1999, Amd.1 to 4, Clause. 7.0 CBIP R. Publication : 325,2015, Clause. 4.2.2.11 IS 15884, 2010, Clause. 4.2. IEC 62055 -31,2005, IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Cl.No. 6.8 of IS 16444 (Part 2) : 2017, Clause. 6.8

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112	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;	Vibration (Sine and random)	IS 13779, 1999, Amd.1 to 5, Clause. 12.3.2 IEC 62052-11, 2003, Amd.1,2016, Clause. 5.2.2.3 IEC 62053-21, 2003, Amd.1,2016, IEC 62053-22, 2003, Amd.1,2016, IEC 62053-23, 2003, Amd.1,2016, IEC 62053-24, 2014, Amd.1,2016, IS 14697, 1999, Amd.1 to 4, Clause. 12.3.2 CBIP R.Publication : 325,2015, Clause. 5.2.3 IS15884,2010, Clause. 5.2.3 IEC 62055 -31,2005, Cl.no.5.2.3 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.5 IS 16444 (Part 2) : 2017, Clause. 6.5
113	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	IS 13779, 1999, amd.1 to 5, Clause 12.11 IEC 62052-11, 2003, Amd.1,2016, IEC 62053-21, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-22, 2003, Amd.1,2016, Clause 8.2 IEC 62053-23, 2003, Amd.1,2016, Clause. 8.2 IEC 62053-24, 2014, Amd.1, 2016, Clause.8.6 IS 14697, 1999, Amd.1 to 4 , Clause 12. CBIP R.Publication : 325,2015, Clause 4.6.3 IS 15884,2010, Clause 4.6.2 IEC 62055 -31,2005, Clause.8.0 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017, Clause. 6.12 IS 16444 (Part 2) : 2017, Clause.
114	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;	Waveform 10% of 3rd harmonic in the current	IS 13779, 1999 , Amd.1to 5, Clause 12. 11 IS 14697, 1999, Amd.1 to 4 , Clause 12.10 CBIP R.Publication : 325,2015 Clause 4.6.3 IS15884,2010 Clause 4.6.2 IS 16444 (Part 1): 2015 and Amend. No. 1, January 2017 Clause. 6.12 IS 16444 (Part 2) : 2017 Clause. 6.12

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115	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Chopped Lightning Impulse Test on Primary Winding	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
116	ELECTRICAL- INDUCTORS & TRANSFORMERS	current Transformer	Composite Error	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
117	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Errors and other characteristics	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
118	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	High voltage power frequency test (dry and wet).	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
119	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Instrument Security	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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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120	ELECTRICAL- INDUCTORS & TRANSFORMERS	current Transformer	Over Voltage Interturrn test	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
121	ELECTRICAL- INDUCTORS & TRANSFORMERS	current Transformer	Partial Discharge	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
122	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Secondary Winding	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
123	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Secondary winding resistance	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
124	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Switching Impulse Voltage Withstand on Primaty Winding (Dry	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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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125	ELECTRICAL- INDUCTORS & TRANSFORMERS	current Transformer	Terminal marking And Polarity	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
126	ELECTRICAL- INDUCTORS & TRANSFORMERS	current Transformer	Turn ratio	IS:2705 (Part -1) 1992 Reaffirmed 2017, 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
127	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current Transformer	Verification of the degree of Protection by enclosures	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
128	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current transformers	Enclosure tightness test at the ambient temperature	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
129	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current transformers	Lightning Impulse Voltage Withstand	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
130	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current transformers	Short Time Current Test	IS:2705 (Part -1) 1992 Reaffirmed 2017, 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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131	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current transformers	Temperature Rise	IS:2705 (Part -1 & 2) 1992 Reaffirmed 2017, 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
132	ELECTRICAL- INDUCTORS & TRANSFORMERS	Current transformers	Transient Response	IS:2705 (Part -1) 1992 Reaffirmed 2017, 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
133	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution & Dry type transformers	Chopped Lightning Impulse	IS: 2026 (Part-1), 2011; IS: 2026 (Part-3), 2014; IS: 2026 (Part-5), 2016; IS: 2026(Part-10), 2009, IS:1180 (Part-1), 2014;+ Amd No.1 2014, Amd No.2 2016, IS: 11171,2016; IS: 3151,1982, IS11333, 2016; IEC 60076-1, 2011; IEC 60076-3, 2013; IEC 60076-4, 2002; IEC 60076-6, 2007; IEC 60076-8, 1997; IEC 60076-11, 2018, IEC 60310, 2016; IEEE C 57.12.00, 2010; IEEE C57.12
134	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution & Dry type transformers	Paint Adhesion	IS:1180 (Part-1), 2014;+ Amd No 1:2016 +Amd no. 2:2017+Amd no. 3
135	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution & Dry type transformers	Permissible Flux Density & Over fluxing	IS: 2026 (Part-1), 2011;, IS:1180 (Part-1), 2014;+ Amd No.1 2014, Amd No.2 2016, IS: 11171,2016; IS: 3151,1982, IS11333, 2016; IEC 60076-1, 2011; IEC 60076-2, 2011; 2016; IEC 60076-11, 2018, IEC 60310, 2016; IEEE C 57.12.00, 2010; IEEE C57.12

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136	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution & Dry type transformers.	Induced Over Voltage	IS: 2026 (Part-1), 2011 Reaffirmed 2016; 2010 Reaffirmed 2015; IS: 2026 (Part-3), 2009 Reaffirmed 2014; ; IS: 2026(Part-10), 2009; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1, 2011; IEC 60076-3, 2013+ Amd. 2018; IEC 60076-4, 2002; IEC 60076-6; 2007; IEC 60076-7, 2005; IEC 60076-8, 1997;
137	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution & Dry type transformers.	Lightning Impulse Voltage Withstand	IS: 2026 (Part-1), 2011; IS: 2026 (Part-3), 2014; IS: 2026 (Part-5), 2016; IS: 2026(Part-10), 2009, IS:1180 (Part-1), 2014;+ Amd No.1 2014, Amd No.2 2016, IS: 11171,2016; IS: 3151,1982, IS11333, 2016; IEC 60076-1, 2011; IEC 60076-3, 2013; IEC 60076-4, 2002; IEC 60076-6, 2007; IEC 60076-8, 1997; IEC 60076-11, 2018, IEC 60310, 2016; IEEE C 57.12.00, 2010; IEEE C57.12
138	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution & Dry type transformers.	Pressure Test	IS:1180 (Part-1), 2014;+ Amd No.1 2016, Amd No.2:2017+amd no. 3:2019

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139	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution & Dry type transformers.	Short Circuit Withstand Test	IS: 2026 (Part-1), 2011 Reaffirmed 2016; IS: 2026 (Part-3), 2009 Reaffirmed 2014; IS: 2026 (Part-5), 2011; IS: 2026(Part-10), 2009; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1, 2011; IEC 60076-3, 2013+ Amd. 2018; IEC 60076-4, 2002; IEC 60076-5, 2006; IEC 60076-6; 2007; IEC 60076-7, 2005; IEC 60076-8, 1997;
140	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	Acoustic Noise Level/ Sound Level determination	IS: 2026 IS: 2026(Part-10), 2009; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1, 2011; 2013+ Amd. 2018; IEC 60076-6; 2007;
141	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	BDV & Moisture Content of Oil in The Transformer	PPM IEC 60814:1997, BDV IS: 6792:2017,IEC 60156
142	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	Dielectric Tests	IS: 2026 (Part-1), 2011 ; IS: 2026 (Part-3), 2009 Reaffirmed 2014; IS: 2026 (Part-5), 2011; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1, 2011; IEC 60076-3, 2013+ Amd. 2018; IEC 60076-4, 2002; IEC 60076-5, 2006; IEC 60076-6; 2007;

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143	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	Impedance Voltage/Short Circuit Impedance (Principal Tapping) And Load Loss	IS: 2026 (Part-1), 2011 Reaffirmed 2016; IS: 2026(Part-10), 2009; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1, 2011; 2006; IEC 60076-6; 2007; IEC 60076-7, 2005; IEC 60076-8, 1997;
144	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	Insulation Resistance	IS: 2026 (Part-1), 2011 2010 Reaffirmed 2015;; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1, 2011; IEC 60076-6; 2007;
145	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	Measurement of voltage ratio and check of voltage vector relationship	IS: 2026 (Part-1), 2011 Reaffirmed 2016; IS: 2026(Part-10), 2009; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1,
146	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	No-Load Loss and Current	IS: 2026 (Part-1), 2011 Reaffirmed 2016, 2009; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1,
147	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	Oil Leakage	IS:1180 (Part-1), 2014 + Amd No.1 2016 + Amd No.2 2017;+amd no. 3:2019

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148	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	Temperature rise test	IS: 2026 (Part-1), 2011 Reaffirmed 2016; IS: 2026 (Part-2), 2010 Reaffirmed 2015; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1, 2011; IEC 60076-2, 2011; IEC 60076-6; 2007; IEC 60076-8, 1997;
149	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors , Distribution and Dry type transformers	Vacuum Test	IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017;+amd no. 3:2019
150	ELECTRICAL- INDUCTORS & TRANSFORMERS	Power Transformers, Traction Transformers, Auto transformer and Inductors up to 220kV rating, Distribution (up to 2500kVA 33kV rating) & Dry type transformers	Winding Resisrance	IS: 2026 (Part-1), 2011 Reaffirmed 2016; 2009; IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2 2017; IS: 11171, 1985 Reaffirmed 2016; IS: 3151, 1982 Reaffirmed 2016; IS: 11333 , 1985 Reaffirmed 2016; IEC 60076-1,
151	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Dielectric Test	IS:5553-2, 1990 Reaffirmed 2013; IS:5553-3,1990 Reaffirmed 2013; 2007 IS:5553-4, 1989 Reaffirmed 2014 ; IS:5553-5, 1985 Reaffirmed 2016; IS:5553-6,1990 Reaffirmed 2016; IS:5553- 8,1990 Reaffirmed 2014; IEC:60076-6
152	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Impedance Voltage/Short	IS:5553-2, 1990 Reaffirmed 2013; IS:5553-3,1990 Reaffirmed 2013; 2007 IS:5553-4, 1989 Reaffirmed 2014 ; IS:5553-5, 1985 Reaffirmed 2016; IS:5553-6,1990 Reaffirmed 2016; IS:5553- 8,1990 Reaffirmed 2014; IEC:60076-6

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153	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Insulation Resistance	IS:5553-2, 1990 Reaffirmed 2013; IS:5553-3,1990 Reaffirmed 2013; 2007 IS:5553-4, 1989 Reaffirmed 2014 ; IS:5553-5, 1985 Reaffirmed 2016; IS:5553-6,1990 Reaffirmed 2016; IS:5553- 8,1990 Reaffirmed 2014; IEC:60076-6
154	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Lightning Impulse Voltage Withstand	IS:5553-2, 1990 Reaffirmed 2013; IS:5553-3,1990 Reaffirmed 2013; 2007 IS:5553-4, 1989 Reaffirmed 2014 ; IS:5553-5, 1985 Reaffirmed 2016; IS:5553-6,1990 Reaffirmed 2016; IS:5553- 8,1990 Reaffirmed 2014; IEC:60076-6
155	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Short Time Withstand Current	IS:5553-2, 2013, IS:5553-3, 2013, 2007 IS:5553-4, 2014, IS:5553-5, 2016, IS:5553-6, 2016, IS:5553- 8, 2014, IEC:60076-6
156	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Temperature Rise Test	IS:5553-2, 1990 Reaffirmed 2013; IS:5553-3,1990 Reaffirmed 2013; 2007 IS:5553-4, 1989 Reaffirmed 2014 ; IS:5553-5, 1985 Reaffirmed 2016; IS:5553-6,1990 Reaffirmed 2016; IS:5553- 8,1990 Reaffirmed 2014; IEC:60076-6
157	ELECTRICAL- INDUCTORS & TRANSFORMERS	Reactors	Winding Resistance	IS:5553-2, 1990 Reaffirmed 2013; IS:5553-3,1990 Reaffirmed 2013; 2007 IS:5553-4, 1989 Reaffirmed 2014 ; IS:5553-5, 1985 Reaffirmed 2016; IS:5553-6,1990 Reaffirmed 2016; IS:5553- 8,1990 Reaffirmed 2014; IEC:60076-6
158	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IEC 60076- 1
159	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IEC 60076-3, 2013+ Amd.

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160	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IEC 60076-4
161	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IEC 60076-5
162	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IEC 60076-6
163	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IEC 60076-7
164	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IS: 11171, 1985 Reaffirmed
165	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IS: 11333 , 1985 Reaffirmed
166	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IS: 2026 (Part-3), 2009 Reaffirmed
167	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IS: 2026 (Part-5)
168	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IS: 3151, 1982 Reaffirmed
169	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IS:1180 (Part-1), 2014 + Amd No.1 2014 + Amd No.2
170	ELECTRICAL- INDUCTORS & TRANSFORMERS	Transformers	Short Circuit Withstand Test	IEC 60076-8
171	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Short circuit withstand capability	IS:3156 (part -1) to (part -4) 1992 Rea. 2007, 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)
172	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)

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173	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)
174	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)
175	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)
176	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)
177	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)

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178	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)
179	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)
180	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)
181	ELECTRICAL- INDUCTORS & TRANSFORMERS	Voltage transformers & CVT	Verification of the degree of Protection by enclosures	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)
182	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)
183	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Insulator Strings	Power Arc Test	IEC 61467

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184	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:60168/2001 IEC:60383-1/1993 IEC:60383-2/1993 IEC1109/1992A1/1995 IEC 60433/1998 IS:2544/1973-RA-2002 Amendment-1/1997 IS:731-RP1993 IS 1445
185	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Residual operating Characteristics Testing Under	IS/IEC 60947-1 :2011+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 60947-6-1, 2005, A1-2013, 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
186	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Protection Against Electric Shock	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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187	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Resistance to Heat	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
188	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing 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 (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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189	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Making & breaking capacity	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 60947-6-1, 2005, A1-2013, 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
190	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit at 1.1 times protective current	IS 10027:2000, IEC 60755: 2017 , IS 13032, 1991, IEC 60695-2-10
191	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gea	Tripping Limits ans Characteristics	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 60947-6-1, 2005, A1-2013, 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 :
192	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Autoreclosure	Mechanical operation	IS 7567, 1993 IS/IEC 62271(part100), 2008 IS 12729, 2004/IEC 60694, 2002 ANSI/IEEE C-37.60

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193	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Autoreclosures	Operating Duty	IS: 7567, 1993; IEC 62271-100, 2012 IS/IEC 62271 (Part 100), 2008; IS: 12729, 2004/IEC 60694, 2002; ANSI/IEEE C-37.60
194	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Autoreclosures	Short time current	IS: 7567, 1993; IEC 62271-100, 2008 + A1,2012 + A2 , 2017. IS/IEC 62271 (Part 100), 2008; IS: 12729, 2004/IEC 60694, 2002; ANSI/IEEE C-37.60
195	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Autoreclosures	Temperature rise	IS: 7567, 1993; IEC 62271-100, 2012 IS/IEC 62271 (Part 100), 2008; IS: 12729, 2004/IEC 60694, 2002; ANSI/IEEE C-37.60
196	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 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012, IEC/TR 61641,2014 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23, 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7

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197	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Degree of Protection	IS 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 A1 IS 8623 : Part 3 1993A 1 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23, 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7
198	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	High Voltage Power Frequency	IS 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 A1 IS 8623 : Part 3 1993A 1 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23:2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7

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199	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Lihgttning Impulse	IS 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 A1 IS 8623 : Part 3 1993A 1 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23, 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7
200	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Short time current test	IS 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012, IEC/TR 61641,2014 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23, 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7

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201	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Temperature Rise	IS 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 A1 IS 8623 : Part 3 1993A 1 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23, 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7
202	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Testing under condition of due to internal fault	IS 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012, IEC/TR 61641,2014 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23, 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7

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203	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Testing under conditions of arcing due to internal fault	IS 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012, IEC/TR 61641,2014 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23: 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7
204	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 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 A1 IS 8623 : Part 3 1993A 1 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23, 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7

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205	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Verification of Mechanical operation	IS 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 A1 IS 8623 : Part 3 1993A 1 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23, 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7
206	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Bus ducts, panels. MCB boards. Distribution pillars, distribution fuse boards and cut out etc.	Verification of the protective circuit	IS 8623 : Part 1 : 1993 IS 8623 : Part 2 : 1993 IEC 61439-1,2011 IEC 61439-2, 2011 IEC 61439-3:2012 IEC 61439-4-2012 IEC 61439-5:2014 IEC 61439-6, 2012, IEC/TR 61641,2014 IS/IEC60947-1, 2004 IEC60947-1, 2007 +A1 2010 +A2 2014 IS 13032 : 1991 IS 8084,1976, RA 2007 IS 5039,1983 A1-1997, IS 2675, 1983, IS/IEC 60529:2001 IEC 60529, 1989: A1 1999: A2 2013 IEEE C37.23, 2003, IS/IEC 61439 : Part 0, 2010, IS/IEC 61439 : Part 1, 2011, IS/IEC 61439 : Part 2, 2011, IS/IEC/TS 61439 : Part 7

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207	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Resistance of main circuit	IS:9921-1, 1981, Reaffirmed 2007; IS:9921-2, 1982, Reaffirmed 2007; IS:9921-3, 1982, Reaffirmed 2007; IS:9921-4, 1985, Reaffirmed 2007; IS:9921-5, 1985, Reaffirmed 2007; IS/IEC 62271 (Part 1), 2007; IS/IEC 62271 (Part 102), 2003; IEC 62271-102, 2013. IEEEC 37.30, 1997 IEEEC 37.09, 1993 ANSI C 37.32, 2002
208	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Dielectric Tests (Wet & Dry)	IS:9921-1, 1981, Reaffirmed 2007; IS:9921-2, 1982, Reaffirmed 2007; IS:9921-3, 1982, Reaffirmed 2007; IS:9921-4, 1985, Reaffirmed 2007; IS:9921-5, 1985, Reaffirmed 2007; IS/IEC 62271 (Part 1), 2007; IS/IEC 62271 (Part 102), 2003; IEC 62271-102, 2013. IEEEC 37.30, 1997 IEEEC 37.09, 1993 ANSI C 37.32, 2002
209	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Lightning Impulse Voltage Withstand (Upto 400 kV Class)	IS:9921-1, 1981, Reaffirmed 2007; IS:9921-2, 1982, Reaffirmed 2007; IS:9921-3, 1982, Reaffirmed 2007; IS:9921-4, 1985, Reaffirmed 2007; IS:9921-5, 1985, Reaffirmed 2007; IS/IEC 62271 (Part 1), 2007; IS/IEC 62271 (Part 102), 2003; IEC 62271-102, 2013. IEEEC 37.30, 1997 IEEEC 37.09, 1993 ANSI C 37.32, 2002

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210	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Lightning Impulse voltage withstand test	IS:9921-1, 1981, Reaffirmed 2007; IS:9921-2, 1982, Reaffirmed 2007; IS:9921-3, 1982, Reaffirmed 2007; IS:9921-4, 1985, Reaffirmed 2007; IS:9921-5, 1985, Reaffirmed 2007; IS/IEC 62271 (Part 1), 2007; IS/IEC 62271 (Part 102), 2003; IEC 62271-102, 2013. IEEEC 37.30, 1997 IEEEC 37.09, 1993 ANSI C 37.32
211	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Mechanical Endurance	IS:9921-1, 1981, Reaffirmed 2007; IS:9921-2, 1982, Reaffirmed 2007; IS:9921-3, 1982, Reaffirmed 2007; IS:9921-4, 1985, Reaffirmed 2007; IS:9921-5, 1985, Reaffirmed 2007; IS/IEC 62271 (Part 1), 2007; IS/IEC 62271 (Part 102), 2003; IEC 62271-102, 2013. IEEEC 37.30, 1997 IEEEC 37.09, 1993 ANSI C 37.32, 2002
212	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Short Time Withstand Current and Peak Withstand Current.	IS/IEC 62271 (part-102),2013. IS/IEC 62271 (part-1),2007. IS/IEC 62271-102,2018. IS/IEC 62271-1,2017. IEC 62271-100, 2008 + Amd. 1 -2012 Amd. 2-2017.IEC 62271-104,2015. IEC 62271-105,2012.ANSI/IEEE 37.09, 1999. ANSI/IEEE 37.60, 2012. IEEEC 37.30,1994. ANSI 3732
213	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Switching impulse voltage test(dry)	IS:9921-1, 1981, Reaffirmed 2007; IS:9921-2, 1982, Reaffirmed 2007; IS:9921-3, 1982, Reaffirmed 2007; IS:9921-4, 1985, Reaffirmed 2007; IS:9921-5, 1985, Reaffirmed 2007; IS/IEC 62271 (Part 1), 2007; IS/IEC 62271 (Part 102), 2003; IEC 62271-102, 2013. IEEEC 37.30, 1997 IEEEC 37.09, 1993 ANSI C 37.32

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214	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	Disconnectors and Earthing switches	Temperature rise test	IS:9921-1, 1981, Reaffirmed 2007; IS:9921-2, 1982, Reaffirmed 2007; IS:9921-3, 1982, Reaffirmed 2007; IS:9921-4, 1985, Reaffirmed 2007; IS:9921-5, 1985, Reaffirmed 2007; IS/IEC 62271 (Part 1), 2007; IS/IEC 62271 (Part 102), 2003; IEC 62271-102, 2013. IEEEC 37.30, 1997 IEEEC 37.09, 1993 ANSI C 37.32, 2002
215	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Switching impulse voltage test(dry)	IS/IEC 62271 (Part 102),2003 ; IS/IEC 62271 (Part 1) 2007, IEC 62271 (Part 202) 2018, IEC 62271-1, 2017, IEC 62271-100 2017, IEC 62271-104,2015, IEC 62271-105 2012, ANSI/IEEE 37.09,1999; ANSI/IEEE 37.60, 2012, EEEC 37.34, 1994; IEEEC 37.30, 1997; ANSI 32
216	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Dielectric Tests (Wet &Dry)	IS:9920-1, 2002/IEC:60265-1,1998 Reaffirmed 2012; IS:9920-2, 2001/IEC:60265-2,1988 Reaffirmed 2016; IS/IEC 62271-103 2011, IEC 62271-1, 2017, IEC 62271-104 2009, IEC 62271-103, 2011, IEC 62271-105, 2012, ANSI/IEEE C 37.34 1994, ANSI/IEEE C 37.30 1997, ANSI/IEEE C 37.32
217	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Lightning Impulse Voltage withstand test	IS:9920-1, 2002/IEC:60265-1,1998 Reaffirmed 2012; IS:9920-2, 2001/IEC:60265-2,1988 Reaffirmed 2016; IS/IEC 62271-103 2011, IEC 62271-1, 2017, IEC 62271-104 2009, IEC 62271-103, 2011, IEC 62271-105, 2012, ANSI/IEEE C 37.34 1994, ANSI/IEEE C 37.30 1997, ANSI/IEEE C 37.32

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218	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Mechanical endurance test	IS:9920-1, 2002/IEC:60265-1,1998 Reaffirmed 2012; IS:9920-2, 2001/IEC:60265-2,1988 Reaffirmed 2016; IS/IEC 62271-103 2011, IEC 62271-1, 2017, IEC 62271-104 2009, IEC 62271-103, 2011, IEC 62271-105, 2012, ANSI/IEEE C 37.34 1994, ANSI/IEEE C 37.30 1997, ANSI/IEEE C 37.32
219	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Rated Making and Breaking Capacity	IS/IEC 62271 (Part 102),2003 ; IS/IEC 62271 (Part 1) 2007, IES 62271 (Part 102) 2018, IEC 62271-1, 2017, IEC 62271-100 ,2008 + Amd. 2012 + Amd.2017, IEC 62271-104,2015, IEC 62271-105 2012, ANSI/IEEE 37.09,1999; ANSI/IEEE 37.60, 2012, EEEC 37.34, 1994; IEEEC 37.30, 1997; ANSI 32
220	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Rated Short Circuit Making Capacity	IS/IEC 62271 (Part 102),2003 ; IS/IEC 62271 (Part 1) 2007, IES 62271 (Part 102) 2018, IEC 62271-1, 2017, IEC 62271-100 ,2008 + Amd. 2012 + Amd.2017, IEC 62271-104,2015, IEC 62271-105 2012, ANSI/IEEE 37.09,1999; ANSI/IEEE 37.60, 2012, EEEC 37.34, 1994; IEEEC 37.30, 1997; ANSI 32
221	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Resistance of Main Circuit	IS/IEC 62271-103 2011, IEC 62271-1, 2017, IEC 62271-104 2009, IEC 62271-103, 2011, IEC 62271-105

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222	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 (Part 102),2003 ; IS/IEC 62271 (Part 1) 2007, IES 62271 (Part 102) 2018, IEC 62271-1, 2017, IEC 62271-100 ,2008 + Amd. 2012 + Amd.2017, IEC 62271-104,2015, IEC 62271-105 2012, ANSI/IEEE 37.09,1999; ANSI/IEEE 37.60, 2012, EEEC 37.34, 1994; IEEEC 37.30, 1997; ANSI 32
223	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Single Capacitor Bank Switching	IS 9920-1, IEC 60265-1 IS 9920-2 IEC 60265-2 IEC 62271-104 IEC 6227-1 IEC 62271-103 IEC 62271-150
224	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.T. Switches/ Line Sectionalizer/ Capacitor Switch/ Load Break Switch	Temperature Rise	IS:9920-1, 2002/IEC:60265-1,1998 Reaffirmed 2012; IS:9920-2, 2001/IEC:60265-2,1988 Reaffirmed 2016; IS/IEC 62271-103 2011, IEC 62271-1, 2017, IEC 62271-104 2009, IEC 62271-103, 2011, IEC 62271-105, 2012, ANSI/IEEE C 37.34 1994, ANSI/IEEE C 37.30 1997, ANSI/IEEE C 37.32
225	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Swichgear Panel With Circuit	Inductive Load Current Switching	IEC 62271-1, 2017. IEC 62271-100,2008 + Amd.1: 2012 + Amd.2 :2017. IEC 62271-110,2012. IEC 62271-200,2011. IEC 62271-201, 2014. IEC 62271-203, 2011. IEC 62277-1, 2017. IEC 60077-2,2017. IEC 60077-4, 2003 BS 6581, 1985/IEC 694, 1980. IS/EIC 62271 (part-1), 2007, Reaffirmed 2013. IS/EIC 62271 (part-100), 2008, Reaffirmed 2018. IS/EIC 62271 (part-200), 2003, Reaffirmed 2013. IS/EIC 62271 (part-102), 2003, Reaffirmed 2018. EIC 60529,2013. IS:14659/IEC 60466, 1999. Reaffirmed 2017. ANSI/IEEE 37.09,19

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226	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Swichgear Panel With Circuit	Internal Arc	IEC 62271-1, 2017. IEC 62271-100,2008 + Amd.1: 2012 + Amd.2 :2017. IEC 62271-110,2012. IEC 62271-200,2011. IEC 62271-201, 2014. IEC 62271-203, 2011. IEC 62277-1, 2017. IEC 60077-2,2017. IEC 60077-4, 2003 BS 6581, 1985/IEC 694, 1980. IS/EIC 62271 (part-1), 2007, Reaffirmed 2013. IS/EIC 62271 (part-100), 2008, Reaffirmed 2018. IS/EIC 62271 (part-200), 2003, Reaffirmed 2013. IS/EIC 62271 (part-102), 2003, Reaffirmed 2018. EIC 60529,2013. IS:14659/IEC 60466, 1999. Reaffirmed 2017. ANSI/IEEE 37.09,19
227	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Swichgear Panel With Circuit	Lighning Impulse Voltage withstand	IEC 62271-1, 2017. IEC 62271-100,2008 + Amd.1: 2012 + Amd.2 :2017. IEC 62271-110,2012. IEC 62271-200,2011. IEC 62271-201, 2014. IEC 62271-203, 2011. IEC 62277-1, 2017. IEC 60077-2,2017. IEC 60077-4, 2003 BS 6581, 1985/IEC 694, 1980. IS/EIC 62271 (part-1), 2007, Reaffirmed 2013. IS/EIC 62271 (part-100), 2008, Reaffirmed 2018. IS/EIC 62271 (part-200), 2003, Reaffirmed 2013. IS/EIC 62271 (part-102), 2003, Reaffirmed 2018. EIC 60529,2013. IS:14659/IEC 60466, 1999. Reaffirmed 2017. ANSI/IEEE 37.09,19

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228	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Swichgear Panel With Circuit	Mechanical Operation at Ambient Air Temperature	IS/IES 62271 (Part 1) 2007 Reaffirmed 2013, IS/IES 62271 (Part 100) 2008, Reaffirmed 2013, IS/IES 62271 (Part 200) 2003, IS/IES 62271 (Part 201) 2006, IS/IES 62271 (Part 203) 2003, IS 14659 1999/IEC60466 1987 Reaffirmed 2009, IEC 62271-1, 2017, IEC 62271-100 2008+ Amendment 1 2012+ Amendment 2 2017, IEC 62271-106 2011, IEC 62271-110 2012, IEC 62271-200 2011, IEC 62271-201 2014, IEC-60529 ; IEC / TR 62271-308 IEC 62271-202 2014, IEC 62271-203 2011, IEC 60077-1 2017, IEC 60077-2 2017, IEC 60077
229	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Swichgear Panel With Circuit	Temperature rise test	IS/IES 62271 (Part 1) 2007 Reaffirmed 2013, IS/IEC 62271 (Part 100) 2008, Reaffirmed 2013, IS/IEC 62271 (Part 200) 2003, IS/IES 62271 (Part 201) 2006, IS/IEC 62271 (Part 203) 2003, IS 14659 1999/IEC60466 1987 Reaffirmed 2009, IEC 62271-1, 2017, IEC 62271-100 2008+ Amendment 1 2012+ Amendment 2 2017, IEC 62271-106 2011, IEC 62271-110 2012, IEC 62271-200 2011, IEC 62271-201 2014, IEC-60529 ; IEC / TR 62271-308 IEC 62271-202 2014, IEC 62271-203 2011, IEC 60077-1 2017, IEC 60077-2 2017, IEC 60077

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230	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V, Circuit Breaker & Swichgear Panel With Circuit	Test to verify the degrees of protection of enclosure	IS/IES 62271 (Part 1) 2007 Reaffirmed 2013, IS/IES 62271 (Part 100) 2008, Reaffirmed 2013, IS/IES 62271 (Part 200) 2003, IS/IES 62271 (Part 201) 2006, IS/IES 62271 (Part 203) 2003, IS 14659 1999/IEC60466 1987 Reaffirmed 2009, IEC 62271-1, 2017, IEC 62271-100 2008+ Amendment 1 2012+ Amendment 2 2017, IEC 62271-106 2011, IEC 62271-110 2012, IEC 62271-200 2011, IEC 62271-201 2014, IEC-60529 ; IEC / TR 62271-308 IEC 62271-202 2014, IEC 62271-203 2011, IEC 60077-1 2017, IEC 60077-2 2017, IEC 60077
231	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Lightning Impulse voltage withstand test	IS/IES 62271 (Part 1) 2007 Reaffirmed 2013, IS/IES 62271 (Part 100) 2008, Reaffirmed 2013, IS/IES 62271 (Part 200) 2003, IS/IES 62271 (Part 201) 2006, IS/IES 62271 (Part 203) 2003, IS 14659 1999/IEC60466 1987 Reaffirmed 2009, IEC 62271-1, 2017, IEC 62271-100 2008+ Amendment 1 2012+ Amendment 2 2017, IEC 62271-106 2011, IEC 62271-110 2012, IEC 62271-200 2011, IEC 62271-201 2014, IEC-60529 ; IEC / TR 62271-308 IEC 62271-202 2014, IEC 62271-203 2011, IEC 60077-1 2017, IEC 60077-2 2017, IEC 60077

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232	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Measurement of the resistance of the main circuit.	IS/IES 62271 (Part 1) 2007 Reaffirmed 2013, IS/IES 62271 (Part 100) 2008, Reaffirmed 2013, IS/IES 62271 (Part 200) 2003, IS/IES 62271 (Part 201) 2006, IS/IES 62271 (Part 203) 2003, IS 14659 1999/IEC60466 1987 Reaffirmed 2009, IEC 62271-1, 2017, IEC 62271-100 2008+ Amendment 1 2012+ Amendment 2 2017, IEC 62271-106 2011, IEC 62271-110 2012, IEC 62271-200 2011, IEC 62271-201 2014, IEC-60529 ; IEC / TR 62271-308 IEC 62271-202 2014, IEC 62271-203 2011, IEC 60077-1 2017, IEC 60077-2 2017, IEC 60077
233	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Switching impulse voltage test(dry)	IS/IES 62271 (Part 1) 2007 Reaffirmed 2013, IS/IES 62271 (Part 100) 2008, Reaffirmed 2013, IS/IES 62271 (Part 200) 2003, IS/IES 62271 (Part 201) 2006, IS/IES 62271 (Part 203) 2003, IS 14659 1999/IEC60466 1987 Reaffirmed 2009, IEC 62271-1, 2017, IEC 62271-100 2008+ Amendment 1 2012+ Amendment 2 2017, IEC 62271-106 2011, IEC 62271-110 2012, IEC 62271-200 2011, IEC 62271-201 2014, IEC-60529 ; IEC / TR 62271-308 IEC 62271-202 2014, IEC 62271-203 2011, IEC 60077-1 2017, IEC 60077-2 2017, IEC 60077

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234	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit breaker & switchgear panel with circuit breaker	Short circuit making and breaking	IEC 62271-1, 2017. IEC 62271-100,2008 + Amd.1: 2012 + Amd.2 :2017. IEC 62271-110,2012. IEC 62271-200,2011. IEC 62271-201, 2014. IEC 62271-203, 2011. IEC 62277-1, 2017. IEC 60077-2,2017. IEC 60077-4, 2003 BS 6581, 1985/IEC 694, 1980. IS/EIC 62271 (part-1), 2007, Reaffirmed 2013. IS/EIC 62271 (part-100), 2008, Reaffirmed 2018. IS/EIC 62271 (part-200), 2003, Reaffirmed 2013. IS/EIC 62271 (part-102), 2003, Reaffirmed 2018. EIC 60529,2013. IS:14659/IEC 60466, 1999. Reaffirmed 2017. ANSI/IEEE 37.09,19
235	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Cable/Line charging Current Breaking	IEC 62271-1, 2017. IEC 62271-100,2008 + Amd.1: 2012 + Amd.2 :2017. IEC 62271-110,2012. IEC 62271-200,2011. IEC 62271-201, 2014. IEC 62271-203, 2011. IEC 62277-1, 2017. IEC 60077-2,2017. IEC 60077-4, 2003 BS 6581, 1985/IEC 694, 1980. IS/EIC 62271 (part-1), 2007, Reaffirmed 2013. IS/EIC 62271 (part-100), 2008, Reaffirmed 2018. IS/EIC 62271 (part-200), 2003, Reaffirmed 2013. IS/EIC 62271 (part-102), 2003, Reaffirmed 2018. EIC 60529,2013. IS:14659/IEC 60466, 1999. Reaffirmed 2017. ANSI/IEEE 37.09,19

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236	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit breaker & switchgear panel with circuit breaker	Capacitive Current Switching	IEC 62271-1, 2017. IEC 62271-100,2008 + Amd.1: 2012 + Amd.2 :2017. IEC 62271-110,2012. IEC 62271-200,2011. IEC 62271-201, 2014. IEC 62271-203, 2011. IEC 62277-1, 2017. IEC 60077-2,2017. IEC 60077-4, 2003 BS 6581, 1985/IEC 694, 1980. IS/EIC 62271 (part-1), 2007, Reaffirmed 2013. IS/EIC 62271 (part-100), 2008, Reaffirmed 2018. IS/EIC 62271 (part-200), 2003, Reaffirmed 2013. IS/EIC 62271 (part-102), 2003, Reaffirmed 2018. EIC 60529,2013. IS:14659/IEC 60466, 1999. Reaffirmed 2017. ANSI/IEEE 37.09,19
237	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Dielectric test (Wet/Dry)	IS/IES 62271 (Part 1) 2007 Reaffirmed 2013, IS/IES 62271 (Part 100) 2008, Reaffirmed 2013, IS/IES 62271 (Part 200) 2003, IS/IES 62271 (Part 201) 2006, IS/IES 62271 (Part 203) 2003, IS 14659 1999/IEC60466 1987 Reaffirmed 2009, IEC 62271-1, 2017, IEC 62271-100 2008+ Amendment 1 2012+ Amendment 2 2017, IEC 62271-106 2011, IEC 62271-110 2012, IEC 62271-200 2011, IEC 62271-201 2014, IEC-60529 ; IEC / TR 62271-308 IEC 62271-202 2014, IEC 62271-203 2011, IEC 60077-1 2017, IEC 60077-2 2017, IEC 60077

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238	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit breaker & switchgear panel with circuit breaker	Short circuit making and breaking	IS/IEC 62271 (Part 1) IS/IEC 62271 (Part 100) IS/IEC 62271 (Part 200) IS/IEC 62271 (Part 201) IS/IEC 62271 (Part 203) IS 12729 ; IEC 60694 IS 1427; IEC 298 IS 14659 ; IEC60466 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-;IEC 60077-2 IEC 60077-4; BS 6581; IEC 60694; IEEE C 37-09
239	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit breaker & switchgear panel with circuit breaker	Short circuit making and breaking	IS/IES 62271 (Part 1) 2007 Reaffirmed 2013, IS/IES 62271 (Part 100) 2008, Reaffirmed 2013, IS/IES 62271 (Part 200) 2003, IS/IES 62271 (Part 201) 2006, IS/IES 62271 (Part 203) 2003, IS 14659 1999/IEC60466 1987 Reaffirmed 2009, IEC 62271-1, 2017, IEC 62271-100 2008+ Amendment 1 2012+ Amendment 2 2017, IEC 62271-106 2011, IEC 62271-110 2012, IEC 62271-200 2011, IEC 62271-201 2014, IEC-60529 ; IEC / TR 62271-308 IEC 62271-202 2014, IEC 62271-203 2011, IEC 60077-1 2017, IEC 60077-2 2017, IEC 60077

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240	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	H.V. Circuit Breaker & Switchgear Panel with Circuit Breaker	Short Time Withstand Current & peak Withstand Crruent	IEC 62271-1, 2017. IEC 62271-100,2008 + Amd.1: 2012 + Amd.2 :2017. IEC 62271-110,2012. IEC 62271-200,2011. IEC 62271-201, 2014. IEC 62271-203, 2011. IEC 62277-1, 2017. IEC 60077-2,2017. IEC 60077-4, 2003 BS 6581, 1985/IEC 694, 1980. IS/EIC 62271 (part-1), 2007, Reaffirmed 2013. IS/EIC 62271 (part-100), 2008, Reaffirmed 2018. IS/EIC 62271 (part-200), 2003, Reaffirmed 2013. IS/EIC 62271 (part-102), 2003, Reaffirmed 2018. EIC 60529,2013. IS:14659/IEC 60466, 1999. Reaffirmed 2017. ANSI/IEEE 37.09,19
241	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Moisture and Humidity Test	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 60947-6-1, 2005, A1-2013 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 IE

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242	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Conditional short Circuit current	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 60947-6-1, 2005, A1-2013, 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 :
243	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 :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 60947-6-1, 2005, A1-2013, 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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244	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Ageing of electronic Component	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 60947-6-1, 2005, A1-2013 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 IE
245	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Behaviour of RCCB In Case of Earth Fault Current Comprising a D.C. Component	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 60947-6-1, 2005, A1-2013 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 IE

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246	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	behavioyur of The RCCB In Case of Failure of The Line Voltage	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 60947-6-1, 2005, A1-2013 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 IE
247	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Condition of Arcing Due to Internal Fault	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 60947-6-1, 2005, A1-2013 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 IE

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248	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 60947-6-1, 2005, A1-2013, 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 :
249	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Limiting Values of The Non Operating Currents Under Overcurrent Conditions	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 60947-6-1, 2005, A1-2013 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 IE

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250	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Operation of The Test Dvice at The Limits of Rated Voltage	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 60947-6-1, 2005, A1-2013 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 IE
251	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Reliability	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 60947-6-1, 2005, A1-2013 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 IE

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252	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Resistance Against Unwanted Tripping Due to Current	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 60947-6-1, 2005, A1-2013 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 IE
253	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control	Resistance ot The Insulation Against Impulse Voltages	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 60947-6-1, 2005, A1-2013 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 IE

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254	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gea	Clearances and Creepage Distances	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
255	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gea	Indelibilty of Marking	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

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256	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gea	Mechanical Operating and Performance Capability	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 60947-6-1, 2005, A1-2013, 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 :
257	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gea	Mechanism/Trip Free Mechanism	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

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258	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gea	Non Interchageability	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
259	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gea	Reliability of Screws, Current carrying Parts and Connectors	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

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260	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gea	Verification of Marking Dimensions, Visual Examination	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
261	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gea	Verification of Overload Releases	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

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262	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Fuse protected short circuit withstand	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 60947-6-1, 2005, A1-2013, IEC 60947-7-1, 2009, IEC 60947-7-2
263	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit at selectivity limit current	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 , A2-2013, IEC 61009-2-1, 1991, IEC 61009-2-2
264	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	28-day Testing	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 60947-6-1, 2005, A1-2013 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 IE

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265	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Cicruit Fault Current	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 60947-6-1, 2005, A1-2013, 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 :
266	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	conventional operational 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 60947-6-1, 2005, A1-2013, 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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267	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Coordination at the rated making and breaking capacity	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 60947-6-1, 2005, A1-2013, 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 :
268	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Degree of Test Device	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 60947-6-1, 2005, A1-2013 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 IE

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269	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Dilelectric Properties	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 60947-6-1, 2005, A1-2013 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 IE: 1999
270	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Discrimination between SCPD and overload relay	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 60947-6-1, 2005, A1-2013, 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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271	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Environment Test	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 60947-6-1, 2005, A1-2013 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 IE
272	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Flexible Cord Test	V=2.4791% I=2.5553% T=0.7468%
273	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

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274	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	HV test	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 60947-6-1, 2005, A1-2013 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 IE
275	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Individual pole short circuit breaking capacity	IS 10027:2000, IEC 60755: 2017 , IS 13032, 1991, IEC 60695-2-10
276	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Insulation Resistance	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 60947-6-1, 2005, A1-2013 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 IE

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277	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Leakage Current	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
278	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Lightnig Impulse	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 60947-6-1, 2005, A1-2013 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 IE

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279	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	making and breaking capacity	S/IEC 60947-1 :2004 IS/IEC 60947-2 :2003 IS/IEC 60947-3:1999 IS/IEC 60947 - 4 – 1, 2000 IS/IEC 60947 - 4 – 2, 1999 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 60947-6-1, 2005, A1-2013 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, 2
280	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Mechanical and Electrical Endurance	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 60947-6-1, 2005, A1-2013 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 IE

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281	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Operational Performance	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
282	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Over Current Devuce Calibration Test	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 60947-6-1, 2005, A1-2013 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 IE

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283	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Overload Perfomance	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 60947-6-1, 2005, A1-2013, 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 :
284	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Performance at Rated Short Circuit Capacity	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 60947-6-1, 2005, A1-2013, 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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285	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Performance of Test Device	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 60947-6-1, 2005, A1-2013 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 IE
286	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Performance under short circuit conditions	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 60947-6-1, 2005, A1-2013, 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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287	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Prtection Against Elecri Shock (MCB/RCBO)	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 60947-6-1, 2005, A1-2013 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 IE
288	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Rated Earth Fault Breaking Current	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

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289	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Rated residual making and breaking capacity	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 60947-6-1, 2005, A1-2013, 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 :
290	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Rated service short circuit breaking capacity	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 60947-6-1, 2005, A1-2013, 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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291	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Rated ultimate short circuit breaking capacity	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 , A2-2013, IEC 61009-2-1, 1991, IEC 61009-2-2
292	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Reliability of Screws, For External Conductors	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 60947-6-1, 2005, A1-2013 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 IE

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293	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Resistance to heat	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 60947-6-1, 2005, A1-2013 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 IE
294	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Resistance to Abnormal Heat and to Fire	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 60947-6-1, 2005, A1-2013 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 IE

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295	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Resistance to Mechanical Shock and Impact	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 60947-6-1, 2005, A1-2013 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 IE
296	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Resistance to Rusting	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 60947-6-1, 2005, A1-2013 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 IE

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297	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Sensitivit	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 60947-6-1, 2005, A1-2013 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 IE
298	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Service Short Circuit Capacity	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 60947-6-1, 2005, A1-2013, 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 : 199

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299	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Shock	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 60947-6-1, 2005, A1-2013 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 IE
300	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit Breaking capacity at Maximum short time withstand current	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 60947-6-1, 2005, A1-2013, IEC 60947-7-1, 2009, IEC 60947-7-2

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301	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit at ultimate short circuit breaking capacity	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 60947-6-1, 2005, A1-2013, IEC 60947-7-1, 2009, IEC 60947-7-2
302	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short circuit making capacity	IS/IEC 60947-1 :2004 IS/IEC 60947-2 :2003 IS/IEC 60947-3:1999 IS/IEC 60947 - 4 - 1 ,2000 IS/IEC 60947 - 4 - 2 ,1999 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 60947-6-1, 2005, A1-2013 IEC 60947-7-1 2009, IEC 60947-7-2
303	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

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304	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Short time withstand current	IS/IEC 60947-1 :2004 IS/IEC 60947-2 :2003 IS/IEC 60947-3:1999 IS/IEC 60947 - 4 - 1 ,2000 IS/IEC 60947 - 4 - 2 ,1999 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 60947-6-1, 2005, A1-2013 IEC 60947-7-12009, IEC 60947-7-2
305	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	short circuit conditions	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 60947-6-1, 2005, A1-2013, 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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306	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Strength of Actuator Mechanism	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
307	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 60947-6-1, 2005, A1-2013, 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

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308	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Temperature Rise	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
309	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Test Device Ampere Turns	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 60947-6-1, 2005, A1-2013 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 IE

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310	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Time Current Characteristics	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 60947-6-1, 2005, A1-2013 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 IE
311	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Transformer (Current) Balance	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 60947-6-1, 2005, A1-2013 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 IE

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312	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Trip and non trip 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 60947-6-1, 2005, A1-2013, 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
313	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of Ability to Withstand Overload Currents	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 60947-6-1, 2005, A1-2013 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 IE

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314	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of Mechanical and operating Limits	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 60947-6-1, 2005, A1-2013 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 IE
315	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Verification of Mechanical Propertis of Terminals	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 60947-6-1, 2005, A1-2013 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 IE
316	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 : 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

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317	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	Voltage Drop/Effective Earthing	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 60947-6-1, 2005, A1-2013 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 IE
318	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L V Switchgear and Control gear	withstand overload current	IS/IEC 60947-1 :2004 IS/IEC 60947-2 :2003 IS/IEC 60947-3:1999 IS/IEC 60947 - 4 – 1, 2000 IS/IEC 60947 - 4 – 2, 1999 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 60947-6-1, 2005, A1-2013 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, 2

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319	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	L.V, Circuit Breaker & Swichgear Panel With Circuit	Out-Of-Phase Making & Breaking Capacity	IEC 62271-1, 2017. IEC 62271-100,2008 + Amd.1: 2012 + Amd.2 :2017. IEC 62271-110,2012. IEC 62271-200,2011. IEC 62271-201, 2014. IEC 62271-203, 2011. IEC 62277-1, 2017. IEC 60077-2,2017. IEC 60077-4, 2003 BS 6581, 1985/IEC 694, 1980. IS/EIC 62271 (part-1), 2007, Reaffirmed 2013. IS/EIC 62271 (part-100), 2008, Reaffirmed 2018. IS/EIC 62271 (part-200), 2003, Reaffirmed 2013. IS/EIC 62271 (part-102), 2003, Reaffirmed 2018. EIC 60529,2013. IS:14659/IEC 60466, 1999. Reaffirmed 2017. ANSI/IEEE 37.09,19
320	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 201) 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-;IEC 60077-2 IEC 60077-4; BS 6581; IEC 60694; IEEE C 37-09
321	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Mechanical strength	IS 9926, 1981. Reaffirmed
322	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure Mechanical s	Water Absorption on Ceramic Material	IS 9926, 1981. Reaffirmed
323	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Conventional Time and current	IS 9926, 1981. Reaffirmed

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324	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Cut-Off Current Conditions	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
325	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Degree of Protection	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
326	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Dielectric Test	IS 9926, 1981. Reaffirmed
327	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Dimensions	IS 9926, 1981. Reaffirmed
328	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Electric Endurance	IS 9926, 1981. Reaffirmed

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329	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	I2t characteristics and over current 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
330	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Insulation resistance	strength IS 9926, 1981. Reaffirmed
331	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Mechanical Endurance	IS 9926, 1981. Reaffirmed
332	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Mechanical Strength of Fuse Holder	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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333	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Performance Under Short Circuit Conditions	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,
334	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Temperature Cycle	IS 9926, 1981. Reaffirmed
335	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Temperature Rise	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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336	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Time Current Characteristics	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
337	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Visual Examination	IS 9926, 1981. Reaffirmed
338	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Water Absorption (Non Ceramic)	IS 9926, 1981. Reaffirmed
339	ELECTRICAL-SWITCHGEAR & PROTECTIVE EQUIPMENT	LV fuses, fuse holders/base, Rewirable type fuses, fuses (cut- outs) Auxil1iary terminal blocks & interconnect- ing units, cartridge fuses, D type (AC/DC) fuses, semiconductor fuses, fuses with enclosure	Withdrawal Force	strength IS 9926, 1981. Reaffirmed
340	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Electrical Routine	IS 2099, 1986, aml-1989, am2-1993, IS 7421,1988, IS 5561,1970, IS 5621,1980, aml-1983, am2- 1987, IS 2544, 1973 with four Amendments, IS 731,1971 with seven amendments, IEC 60273
341	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing Upto 220kV	Switching Impulse Voltega (Dry)	IEC:60137/2008 IS:2099/1986 RA 2006 IEEE C57.19.01

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342	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Short Time Current	IS 2099, 1986, aml-1989, am2-1993, IS 7421,1988, IS 5561 2018, IS 5621,1980, aml- 1983, am2- 1987, IS 2544, 1973 with four Amendments, IS 731,1971 with seven amendments,
343	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Visual Inspection	IS 2099, 1986, aml-1989, am2-1993, IS 7421,1988, IS 5561,1970, IS 5621,1980, aml-1983, am2- 1987, IS 2544, 1973 with four Amendments, IS 731,1971 with seven amendments, IEC 60273
344	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	HV power frequency test (dry & wet)	IS 2099, 1986, aml-1989, am2-1993, IS 7421,1988, IS 5561,1970, IS 5621,1980, aml-1983, am2- 1987, IS 2544, 1973 with four Amendments, IS 731,1971 with seven amendments, IEC 60273
345	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Lightning impulse Test & Switching Impulse	IS 2099, 1986, aml-1989, am2-1993, IS 7421,1988, IS 5561,1970, IS 5621,1980, aml-1983, am2- 1987, IS 2544, 1973 with four Amendments, IS 731,1971 with seven amendments, IEC 60273
346	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	puncture	IS 2099, 1986, aml-1989, am2-1993, IS 7421,1988, IS 5561,1970, IS 5621,1980, aml-1983, am2- 1987, IS 2544, 1973 with four Amendments, IS 731,1971 with seven amendments, IEC 60273
347	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Temperature rise test	IS 2099, 1986, aml-1989, am2-1993, IS 7421,1988, IS 5561,1970, IS 5621,1980, aml-1983, am2- 1987, IS 2544, 1973 with four Amendments, IS 731,1971 with seven amendments,

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348	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Bushing, power connectors, Insulators	Verification of Dimensions	IS 2099, 1986, aml-1989, am2-1993, IS 7421,1988, IS 5561,1970, IS 5621,1980, aml-1983, am2- 1987, IS 2544, 1973 with four Amendments, IS 731,1971 with seven amendments, IEC 60273
349	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	H.T. Fuses/ Distribution Fuse Boards and Cut outs	Time Current Characteristic	IS: 9385-1, 1979, Reaffirmed 2017; IS:9385-2, 2018, IS:9385-3, 1980, Reaffirmed 2017; IS: 9385-4, 1983, Reaffirmed 2017; IEC: 60282-1, 2009+AMD1:2014 CSV; IEC: 60282-2, 2008; IS: 2675, 1983 Reaffirmed 2016; IS:13947 (Part-1), 1993 Reaffirmed 2008; IEC 60947-1, 2011; IS:12063, 1987; IEC 60529, 2001; IEEE C37.40,2003; IEEE C37.41,2008; IEEE C37.42
350	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	H.T. Fuses/ Distribution Fuse Boards amd Cut-Outs	Dielectric test.	IS: 9385-1, 1979, Reaffirmed 2017; IS:9385-2, 2018, IS:9385-3, 1980, Reaffirmed 2017; IS: 9385-4, 1983, Reaffirmed 2017; IEC: 60282-1, 2009+AMD1:2014 CSV; IEC: 60282-2, 2008; IS: 2675, 1983 Reaffirmed 2016; IS:13947 (Part-1), 1993 Reaffirmed 2008; IEC 60947-1, 2011; IS:12063, 1987; IEC 60529, 2001; IEEE C37.40,2003; IEEE C37.41,2008; IEEE C37.42
351	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	H.T. Fuses/ Distribution Fuse Boards amd Cut-Outs	Shot Circuit Breaking Capacity	IS: 9385-1, 1979, Reaffirmed 2007; IS:9385-2, 1980, Reaffirmed 2007; IS:9385-3, 1980, Reaffirmed 2007; IS: 9385-4, 1983, Reaffirmed 2007; IEC: 60282-1, 2009; IEC: 60282-2, 2008; IS: 2675, 1983; IS:13947 (Part-1), 1993; IEC 60947-1, 2011; IS:12063, 1987; IEC 60529, 2001; IEEE C37.40,2003; IEEE C37.41,2008; IEEE C37.42

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352	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	H.T. Fuses/ Distribution Fuse Boards amd Cut-Outs	Shot Circuit Breaking Capacity	IS: 9385-1, 1979, Reaffirmed 2017; IS:9385-2, 2018, IS:9385-3, 1980, Reaffirmed 2017; IS: 9385-4, 1983, Reaffirmed 2017; IEC: 60282-1, 2009+AMD1:2014 CSV; IEC: 60282-2, 2008; IS: 2675, 1983 Reaffirmed 2016; IS:13947 (Part-1), 1993 Reaffirmed 2008; IEC 60947-1, 2011; IS:12063, 1987; IEC 60529, 2001; IEEE C37.40,2003; IEEE C37.41,2008; IEEE C37.42
353	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	H.T. Fuses/ Distribution Fuse Boards amd Cut-Outs	Temperature rise Test.	IS: 9385-1, 1979, Reaffirmed 2017; IS:9385-2, 2018, IS:9385-3, 1980, Reaffirmed 2017; IS: 9385-4, 1983, Reaffirmed 2017; IEC: 60282-1, 2009+AMD1:2014 CSV; IEC: 60282-2, 2008; IS: 2675, 1983 Reaffirmed 2016; IS:13947 (Part-1), 1993 Reaffirmed 2008; IEC 60947-1, 2011; IS:12063, 1987; IEC 60529, 2001; IEEE C37.40,2003; IEEE C37.41,2008; IEEE C37.42
354	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	H.T. Fuses/ Distribution Fuse Boards and Cut outs	Creepage distance and clearance	IS: 9385-1, 1979, Reaffirmed 2017; IS:9385-2, 2018, IS:9385-3, 1980, Reaffirmed 2017; IS: 9385-4, 1983, Reaffirmed 2017; IEC: 60282-1, 2009+AMD1:2014 CSV; IEC: 60282-2, 2008; IS: 2675, 1983 Reaffirmed 2016; IS:13947 (Part-1), 1993 Reaffirmed 2008; IEC 60947-1, 2011; IS:12063, 1987; IEC 60529, 2001; IEEE C37.40,2003; IEEE C37.41,2008; IEEE C37.42 IS: 9385-1, 1979, Reaffirmed 2017; IS:9385-2, 2018, IS:9385-3, 1980, Reaffirmed 2017; IS: 9385-4, 1983, Reaffirmed 2017; IEC: 60282-1, 2009+AMD1:2

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355	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	H.T. Fuses/ Distribution Fuse Boards and Cut outs	Degrees of Protection	IS: 9385-1, 1979, Reaffirmed 2017; IS:9385-2, 2018, IS:9385-3, 1980, Reaffirmed 2017; IS: 9385-4, 1983, Reaffirmed 2017; IEC: 60282-1, 2009+AMD1:2014 CSV; IEC: 60282-2, 2008; IS: 2675, 1983 Reaffirmed 2016; IS:13947 (Part-1), 1993 Reaffirmed 2008; IEC 60947-1, 2011; IS:12063, 1987; IEC 60529, 2001; IEEE C37.40,2003; IEEE C37.41,2008; IEEE C37.42
356	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	H.T. Fuses/ Distribution Fuse Boards and Cut outs	power Dissipation	IS: 9385-1, 1979, Reaffirmed 2017; IS:9385-2, 2018, IS:9385-3, 1980, Reaffirmed 2017; IS: 9385-4, 1983, Reaffirmed 2017; IEC: 60282-1, 2009+AMD1:2014 CSV; IEC: 60282-2, 2008; IS: 2675, 1983 Reaffirmed 2016; IS:13947 (Part-1), 1993 Reaffirmed 2008; IEC 60947-1, 2011; IS:12063, 1987; IEC 60529, 2001; IEEE C37.40,2003; IEEE C37.41,2008; IEEE C37.42
357	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Hollow Insulator Post Insulator (Indoor/ Potdoor) Upto 400 KV Rating	Impulse Voltage Withstand	IS:5621, 1980, RA 1989 IS:5350, Part1, 1970, RA 1991 IS:5350, Part2, 1973, RA 1991 IS:5350, Part3, 1971, RA
358	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	HT Contactor	Rated Making and Breaking Capacity	IS/IEC: 60470, 2000 Reaffirmed 2014; IS: 5561, 1970 Reaffirmed 2017; IEC 62271-1, 2011; IEC 62271-106, 2011, ANS/IEEEC37.60
359	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	HT Contactor / HT Connector	Dielectric Test	IS/IEC: 60470, 2000; IS: 5561, 1970 Reaffirmed 2007; IEC 62271 – 1, 2011; IEC 62271 – 106
360	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	HT Contactor / HT Connector	Short Time Current	IS/IEC: 60470, 2000 Reaffirmed 2014; IS: 5561, 1970 Reaffirmed 2017; IEC 62271-1, 2011; IEC 62271-106, 2011 ANS/IEEEC37.60

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361	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	HT Contactor/ HT Connector	Temperature Rise	S/IEC: 60470, 2000; IS: 5561, 1970 Reaffirmed 2007; IEC 62271 – 1, 2011; IEC 62271 – 106
362	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	HT Contactor/ HT Connector	Mechanical Endurance	IS/IEC: 60470, 2000; IS: 5561, 1970 Reaffirmed 2007; IEC 62271 – 1, 2011; IEC 62271 – 106
363	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	HT Contactor/ HT Connector	Dimensions	IS/IEC: 60470, 2000; IS: 5561, 1970 Reaffirmed 2007; IEC 62271 – 1, 2011; IEC 62271 – 106
364	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	HT Contactor/ HT Connector	Visual Examination	IS/IEC: 60470, 2000; IS: 5561, 1970 Reaffirmed 2007; IEC 62271 – 1, 2011; IEC 62271 – 106
365	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Line Traps	Short Time Current	IS: 8792, 1995, Reaffirmed 2008; IS: 8793, 1995, Reaffirmed 2008; IEC:60353 (1989).Amd-1
366	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Motor Terminal Box	Internet Fault Current	IS 6898
367	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	motor Terminal Box	motor Terminal Box	IS6898
368	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Neutral Grounding Resistor Units	Short Time Current	As per CPRI procedure TOP01 Issue no. 6 dtd. 22.5.2002
369	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Neutral Grounding Resistor Units	Temperature Rise	As per CPRI Procedure

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370	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Degree of Protection	S 8468,1977 RA 2006 Amendment-I/1980 IEC 60214-1,2014 IEC:60214-2,2004, IEC:60214/2003 IEC 60947-1-2007+A1 2010 + A2 2014 IS/IEC 60947-1, 2004 IS/IEC 60529:2001 IEC 60529,1989 +A1 1999 +A2
371	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	High Voltage	IS 8468,1977 RA 2006 Amendment-I/1980 IEC 60214-1,2014 IEC:60214-2,2004, IEC:60214/2003 IEC 60947-1-2007+A1 2010 + A2 2014 IS/IEC 60947-1, 2004 IS/IEC 60529:2001 IEC 60529,1989 +A1 1999 +A2
372	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Lightning Impulse Test (Upto 330 KV class	IS 8468,1977 RA 2006 Amendment-I/1980 IEC 60214-1,2014 IEC:60214-2,2004, IEC:60214/2003 IEC 60947-1-2007+A1 2010 + A2 2014 IS/IEC 60947-1, 2004 IS/IEC 60529:2001 IEC 60529,1989 +A1 1999 +A2
373	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Mechanical Endurance	IS 8468,1977 RA 2006 Amendment-I/1980 IEC 60214-1,2014 IEC:60214-2,2004, IEC:60214/2003 IEC 60947-1-2007+A1 2010 + A2 2014 IS/IEC 60947-1, 2004 IS/IEC 60529:2001 IEC 60529,1989 +A1 1999 +A2
374	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Mechanical Test	IS 8468,1977 RA 2006 Amendment-I/1980 IEC 60214-1,2014 IEC:60214-2,2004, IEC:60214/2003 IEC 60947-1-2007+A1 2010 + A2 2014 IS/IEC 60947-1, 2004 IS/IEC 60529:2001 IEC 60529,1989 +A1 1999 +A2

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375	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Short Circuit	IS 8468,1977 Amendment-I/1980 IEC 60214-1,2014 IEC:60214-2,
376	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Switching	IS 8468,1977 Amendment-I/1980, IEC 60214-1,2014 IEC:60214-2
377	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Temperature Rise	IS 8468,1977 RA 2006 Amendment-I/1980 IEC 60214-1,2014 IEC:60214-2,2004, IEC:60214/2003 IEC 60947-1-2007+A1 2010 + A2 2014 IS/IEC 60947-1, 2004 IS/IEC 60529:2001 IEC 60529,1989 +A1 1999 +A2
378	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	On Load Tap Changer	Transition Impedance	IS 8468,1977 Amendment-I/1980 IEC 60214-1,2014 IEC:60214-2,
379	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Spacers for Bundle Conductor	Fault Current	IS 10162: 1982 , Reaffirmed
380	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Surge Arrester for alternating current systems upto 400 kV rating	Lightning impulse voltage test on arrester housing (Dry)	IEC:60099-4/2014, IS: 3070 (Part-III) 1993 Reaffirmed
381	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Surge Arrester for alternating current systems upto 400 kV rating	Switching impulse voltage test on arrester housing (Dry)	IEC:60099-4/2014, IS: 3070 (Part-III) 1993 Reaffirmed
382	ELECTRICAL-TRANSMISSION LINE EQUIPMENT & ACCESSORIES	Surge Arresters	Short Circuit Test	IS:3070-3, 1993, Reaffirmed 2014; IS:15086-1, 2011; IEC 60099-4, 2014; IEC 60099-5, 2018; IEEE C62.11