## ETD 1 BASIC ELECTROTECHNICAL STANDARDS

**SCOPE -** To prepare standards of general and common nature in the field of electrotechnology, such as voltages, current ratings and frequency, quantities and units, nomenclature, graphical symbols, basic marking and general requirements for enclosures of equipment.

SI. No	. IS Number/ DOC Number	Title	Reaffirm Date	Am
STAN	IDARDS PUBLISHED			
1	IS 1885(Part 1):1961	Electrotechnical vocabulary: Part 1 Fundamental definitions	Jul 2007	2
2	IS 1885(Part 8):1986   IEC 60050-482(2004)	Electrotechnical vocabulary: Part 8 Secondary cells and batteries (first revision) (superseding IS:1174)	Jul 2007	
3	IS 1885(Part 9):1992 / IEC 60050(446):1983	Electrotechnical Vocabulary: Part 9 Electrical relays (second revision)	Jul 2007	
4	IS 1885(Part 10):1993   IEC 60050(448):1986	Electrotechnical Vocabulary: Part 10 Power system protection (first revision)	Mar 2004	
5	IS 1885(Part 11):1966	Electrotechnical vocabulary: Part 11 Electrical measurements	Jul 2007	
6	IS 1885(Part 14):1967	Electrotechnical vocabulary: Part 14 Nuclear power plants	Jul 2007	
7	IS 1885(Part 15):2003   IEC 60050(482):1996	Electrotechnical vocabulary: Part 15 Primary cells and batteries (first revision) (superseding IS:1025)		
8	IS 1885(Part 16/Sec 1):1968	Electrotechnical vocabulary: Part 16 Lighting, Section 1 General aspects	Jul 2007	
9	IS 1885(Part 16/Sec 2):1968	Electrotechnical vocabulary: Part 16 Lighting, Section 2 General illumination, lighting fittings and lighting for traffic and signalling	Jul 2007	
10	IS 1885(Part 16/Sec 3):1967	Electrotechnical vocabulary: Part 16 Lighting, Section 3 Lamps and auxiliary apparatus	Jul 2007	
11	IS 1885(Part 17):1979	Electrotechnical vocabulary: Part 17 Switchgear and controlgear (first revision)	Jul 2007	
12	IS 1885(Part 27):1993   IEC 60050(551):1982	Electrotechnical Vocabulary: Part 27 Power electronics (second revision)	Mar 2004	
13	IS 1885(Part 28):1993 / IEC 60050(321):1986	Electrotechnical vocabulary: Part 28 Instrument transformers (first revision)	Mar 2004	
14	IS 1885(Part 29):1971	Electrotechnical vocabulary: Part 29 Mining terms	Jul 2007	
15	IS 1885(Part 30):1971	Electrotechnical vocabulary: Part 30 Overhead transmission and distribution of electrical energy	Jul 2007	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

16	IS 1885(Part 32):1993 / IEC 60050(461):1984	Electrotechnical Vocabulary: Part 32 Electric cables (first revision)	Mar 2004
17	IS 1885(Part 34):1972	Electrotechnical vocabulary: Part 34 Cinematography	Jul 2007
18	IS 1885(Part 35):1993 / IEC 60050(411):1996	Electrotechnical vocabulary: Part 35 Rotating machinery (first revision)	Mar 2004
19	IS 1885(Part 37):1993 / IEC 60050(691):1973	Electrotechnical vocabulary: Part 37 Tariffs for electricity (first revision)	Mar 2004
20	IS 1885(Part 38):1993 / IEC 60050(421):1990	Electrotechnical vocabulary: Part 38 Power transformers and reactors (second revision)	Mar 2004
21	IS 1885(Part 42):1993 / IEC 60050(436) :1990	Electrotechnical Vocabulary: Part 42 Power capacitors (second revision)	Mar 2004
22	IS 1885(Part 43):1977	Electrotechnical vocabulary: Part 43 Electrical equipment used in medical practice	Jul 2007
23	IS 1885(Part 49):1978	Electrotechnical vocabulary: Part 49 Industrial process measurement and control	Jul 2007
24	IS 1885(Part 51):1993   IEC 60050(841):1983	Electrotechnical vocabulary: Part 51 Industrial electro-heating	Jul 2007
25	IS 1885(Part 53):1980	Electrotechnical vocabulary: Part 53 Mica (superseding IS:1174)	Jul 2007
26	IS 1885(Part 54):1993 / IEC 60050(471):1984	Electrotechnical Vocabulary: Part 54 Insulators (First revision)	Mar 2004
27	IS 1885(Part 55):1981	Electrotechnical vocabulary: Part 55 Electric fans	Jul 2007
28	IS 1885(Part 57):1993   IEC 60050(131):1978	Electrotechnical vocabulary: Part 57 Electric and magnetic circuits (first revision)	Mar 2004
29	IS 1885(Part 60):1993 / IEC 60050(426):1990	Electrotechnical Vocabulary: Part 60 Electrical apparatus for explosive atmospheres (first revision)	Mar 2004
30	IS 1885(Part 61):1985	Electrotechnical vocabulary: Part 61 Nuclear medical instruments	Jul 2007
31	IS 1885(Part 62):1993 / IEC 60050(212):1990	Electrotechnical vocabulary: Part 62 Solid insulating materials (first revision)	Mar 2004
32	IS 1885(Part 69):1993   IEC 60050(602):1983	Electrotechnical Vocabulary: Part 69 Generation, transmission and distribution of electricity - Generation	Mar 2004
33	IS 1885(Part 70):1993 / IEC 60050(604):1987	Electrotechnical Vocabulary: Part 70 Generation, transmission and distribution of electricity - operation	Mar 2004
34	IS 1885(Part 71):1993 / IEC 60050(605):1983	Electrotechnical Vocabulary: Part 71 Generation,transmission and distribution of electricity - Substations	Mar 2004

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

35	IS 1885(Part 72):1993   IEC 60050 (101):1977	Electrotechnical Vocabulary : Part 72 Mathematics	Mar 2004
36	IS 1885(Part 73/Sec 1):1993   IEC60050(111-):1984	Electrotechnical vocabulary: Part 73 Physics and Chemistry, Section 1 Physical concepts	Mar 2004
37	IS 1885(Part 73/Sec 2):1993   IEC 60050(111-):1984	Electrotechnical Vocabulary: Part 73 Physics and chemistry - Section 2 Electrotechnical concepts	Mar 2004
38	IS 1885(Part 73/Sec 3):1993   IEC 60050:(111-3):77	Electrotechnical Vocabulary: Part 73 Physics and chemistry - Section 03 Concepts related to quantities and units	Mar 2004
39	IS 1885(Part 74):1978   IEC 60050(151): 1978	Electroechnical Vocabulary: Part 74 Electrical and magnetic devices	Mar 2004
40	IS 1885(Part 75):1993   IEC 60050(351) 1975	Electrotechnical Vocabulary: Part 75 Automatic control	Mar 2004
41	IS 1885(Part 76):1993 / IEC 60050(431):1980	Electrotechnical vocabulary: Part 76 Transducers	Mar 2004
42	IS 1885(Part 77):1993 / IEC 60050(466): 1990	Electrotechnical Vocabulary: Part 77 Overhead lines	Mar 2004
43	IS 1885(Part 78):1993 / IEC 60050(601):1985	Electrotechnical Vocabulary: Part 78 Genereation, transmission and distribution of electricity - General	Mar 2004
44	IS 1885(Part 79):1993 / IEC 60050(603):1986	Electrotechnical Vocabulary: Part 79 Generation, transmission and distribution of electiricity - Power system planning and management	Mar 2004
45	IS 1885(Part 80):1994 / IEC 60050(301):1983	Electrotechnical vocabulary: Part 80 General terms on measurements in electricity	Mar 2004
46	IS 1885(Part 81):1993 / IEC 60050(302):1983	Electrotechnical vocabulary: Part 81 Electrical measuring instruments	Mar 2004
47	IS 2032(Part 15):1976	Graphical symbols used in electrotechnology: Part 15 Aircraft electrical symbols	Jul 2007
48	IS 2032(Part 19):1977	Graphical symbols used in electrotechnology: Part 19 Electrical equipment used in medical practice	Jul 2007
49	IS 2032(Part 25):1980	Graphical symbols used in electrotechnology: Part 25 Electrical installations in ships	Mar 2004
50	IS 3599:1966	Methods of measurement of cooling medium temperature for electrical apparatus	Mar 2004
51	IS 3722(Part 1):1983   IEC 60027-1(1992)	Letter symbols and signs used in electrical technology: Part 1 General guidance on symbols and subscripts (first revision)	Jul 2007
52	IS 3722(Part 2):1983   IEC 60273-1(92)	Letter symbols and signs used in electrical technology: Part 2 Reference tables for symbols and subscripts (first revision)	Jul 2007

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

53	* IS 7691:1975   IEC 600113-1(71)	Frequencies for special power applications	Mar 2004
54	IS 8270(Part 1):1976   IEC 60113-1(71)	Guide for preparation of diagrams, charts and tables for electrotechnology: Part 1 Definitions and classification	Mar 2004
55	IS 8270(Part 2):1976   IEC 60113-2(71)	Guide for preparation of diagrams, charts and tables for electrotechnology: Part 2 Item designation	Mar 2004
56	IS 8270(Part 3):1977   IEC 60113-2(71)	Guide for preparation of diagrams, charts and tables for electrotechnology: Part 3 General requirements for diagrams	Mar 2004
57	IS 8270(Part 4):1977   IEC 60113-2(71)	Guide for preparation of diagrams, charts and tables for electrotechnology: Part 4 Circuit diagrams	Mar 2004
58	IS 8270(Part 5):1976   IEC 60113-2(71)	Guide for preparation of diagrams, charts and tables for electrotechnology: Part 5 Interconnection diagrams and tables	Mar 2004
59	IS 8270(Part 6):1983   IEC 60113-2(71)	Guide for preparation of diagrams, charts and tables for electrotechnology: Part 6 Unit wiring diagrams and tables	Jul 2007
60	IS 9409:1980   IEC 61140 (2001)	Classification of electrical and electronic equipment with regard to protection against electric shock	Jul 2007
61	IS 9499:1980   IEC 60375(72)2003	Conventions concerning electric and magnetic circuits	Mar 2004
62	IS 9676:1980	Reference ambient temperature for electrical equipment	Mar 2004
63	IS 9677:1980	Guide for limits of temperature-rise of the windings of electrical equipment when tested by different methods	Mar 2004
64	IS 9678:1980	Methods of measuring temperature rise of electrical equipment	Mar 2004
65	IS 10381:1982	Terms (and their Hindi equivalents) commonly used for name plates and similar data of electrical power equipment	Mar 2004
66	IS 10580:1983	Service conditions for electrical equipment	Jul 2007
67	IS 11353:1985   IEC 60445(1973)	Guide for uniform system of marking and identification of conductors and apparatus terminals	Jul 2007
68	IS 11354:1985   IEC 60152(63)	Guide for identification by hour numbers of the phase conductors of 3-phase electric systems	Jul 2007
69	IS 11954:1987	Guide for colour coding of electrical mimic diagrams	Mar 2004
70	IS 11955:1987   IEC 60059(1999)	Preferred current ratings	Mar 2004
71	IS 12032(Part 1):1987 / IEC 60617-1(1985)	Graphical symbols for diagrams in the field of electrotechnology: Part 1 General information,general index,cross reference table	Mar 2004

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

72	IS 12032(Part 2):1987 / IEC 60617-2(1983)	Graphical symbols for diagrams in the field of electrotechnology: Part 2 Symbols elements, qualifying symbols and other symbols having general application	Mar 2004	
73	IS 12032(Part 3):1987 / IEC 60617-3(1983)	Graphical symbols for diagrams in the field of electrotechnology:Part 3 Conductors and connecting devices	Mar 2004	
74	IS 12032(Part 4):1987 / IEC 60617-4(1984)	Graphical symbols for diagrams in the field of electrotechnology: Part 4 Passive components	Mar 2004	
75	IS 12032(Part 6):1987 / IEC 60617-6(1983)	Graphical symbols for diagrams in the field of electrotechnology: Part 6 Production and conversion of electrical energy	Mar 2004	
76	IS 12032(Part 7):1987 / IEC 60617-7(1983)	Graphical symbols for diagrams in the field of electrotechnology: Part 7 Switchgear, controlgear and protective devices	Mar 2004	
77	IS 12032(Part 8):1987 / IEC 60617-8(1983)	Graphical symbols for diagrams in the field of electrotechnology: Part 8 Measuring instruments, lamps and signalling devices	Mar 2004	
78	IS 12032(Part 11):1987 / IEC 60617-11(1983)	Graphical symbols for diagrams in the field of electrotechnology: Part 11 Architectural and topographical installation plans and diagrams	Mar 2004	
79	IS 12063:1987   IEC 60529(1976)	Classification of degrees of protection provided by enclosures of electrical equipment	Mar 2004	
80	IS 12360:1988   IEC 60038(1983)	Voltage bands for electrical installations including preferred voltages and frequency (superseding IS:585)	Dec 2005	2
FINAL	ISED DRAFTS UNDER PRINT			
1	DOC.ETD 1(5847)	Internatinal electrotechnical vocabulary, chapter 448: power system protection		
2	DOC.ETD 1(5848)	Internatinal electrotechnical vocabulary, chapter 482: power system protection promary and secondary cells batteries		
3	DOC.ETD 1(5849)	Internatinal electrotechnical vocabulary, chapter 551:Power electronic		
DRAF	Γ STANDARDS ISSUED IN WIDE	CIRCULATION		
1	DOC.ETD 1(5776)	Degrees of protection provided by enclosures of (IP) (first revision of IS 12063)		

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| INDICATES EQUIVALENT STANDARDS

# ETD 2 SOLID ELECTRICAL INSULATING MATERIALS AND INSULATION SYSTEMS

#### **SCOPE** - To prepare standards:

- a) on solid electrical insulating materials.
- b) on guiding principles and on the philosophy of evaluation of insulation systems in general
- c) for functional test programmes and methods intended for evaluation of possible insulation systems and their suitability for use in electrical equipment.
- d) for classification of insulation systems based upon their capability to withstand the complex of the most important service determined by the conditions of the use of insulation in equipment.

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STANI	DARDS PUBLISHED			
1	IS 1175:1981   ISO 67	Methods for grading and classification of muscovite mica blocks, thins and films (first revision)	Oct 2006	;
2	IS 1271:1985   IEC 60085:1984	Thermal evaluation and classification of electrical insulation (first revision)	Oct 2006	;
3	IS 1576:1992	Solid pressboard for electrical purposes(first revision)	Apr 2003	}
4	IS 2259:1963   IEC 60167(1964)	Methods of test for determination of insulation resistance of solid insulating materials	Oct 2005	5 1
5	IS 2260:1973	Preconditioning, conditioning and testing of solid electrical insulating materials (first revision)	Apr 2003	}
6	IS 2448(Part 1):1963	Adhesive insulating tapes for electrical purposes: Part 1 Tapes with cotton textile substrates	Oct 2005	5 5
7	IS 2464:1963	Built-up mica for electrical purposes	Apr 2003	3 1
8	IS 2584:1963	Method of test for electric strength of solid insulating materials at power frequencies	Oct 2006	5 1
9	IS 2824:2007	Method for the determination of the proof and the comparative tracking indices of solid insulating		
	/ IEC 60112:2003	materials (second revision)		
10	IS 3352:1965	Varnished cotton cloth and tape for electrical purposes	Oct 2006	5 1
11	IS 3396:1979	Methods of test for volume and surface resistivities of solid electrical insulating materials (first revision)	Oct 2006	;
12	IS 4248:1967	Non-ignitable and self-extinguishing boards (with mineral base) for electrical purposes	Apr 2003	}
13	IS 4249:1967	Classification and methods of tests for non-ignitable and self-extinguishing properties of solid electrical insulating materials	Apr 2003	3 1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

IS 4486:1967   Recommended methods for the determination of the permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and radio frequencies including metre wavelengths					
electrical purposes - Specification  16 IS 4820:1968	14	IS 4486:1967	permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and	Apr 2003	
Specification  Method of test for determining deleterious substances in fibrous insulating materials  IS 5711:1970 Vulcanized fibre rods and tubes for electrical purposes Apr 2003  IS 6230:1970 Woven asbestos tape for electrical insulating purposes Apr 2003  IS 6659:1976 Electronic grade ceramic materials (first revision) Oct 2006  IS 7084:1973 Bitumen based filling compounds for electrical purposes Apr 2003  Methods of tests for ceramic for telecommunication and allied purposes  IS 7571:1974 Methods of tests for ceramic for telecommunication and allied purposes  IS 7755:1975 High tension insulating cotton tape impregnated with bitumen based compound impregnated with bitumen based compound  Yessure sensitive adhesive tapes for electrical purposes: Part 1 General requirements  IS 7809(Part 1):1975 Pressure sensitive adhesive tapes for electrical purposes: Part 2 Methods of test  IS 7809(Part 3/Sec 1):1986 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Requirements for individual materials, Section 1 Plasticized polyvinytchloride tapes with non-thermosetting adhesive (first revision)  IS 7809(Part 3/Sec 3):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive  IS 7809(Part 3/Sec 4):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Polyester film tapes (PETP) with thermosetting adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Polyester film tapes (PETP) with thermosetting adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, S	15	IS 4819:1968		Oct 2006	
substances in fibrous insulating materials  IS 5711:1970	16	IS 4820:1968		Oct 2006	
19 IS 6230:1970 Woven asbestos tape for electrical insulating purposes Apr 2003 20 IS 6659:1976 Electronic grade ceramic materials (first revision) Oct 2006 21 IS 7084:1973 Bitumen based filling compounds for electrical purposes 22 IS 7571:1974 Methods of tests for ceramic for telecommunication and allied purposes 23 IS 7755:1975 High tension insulating cotton tape impregnated with bitumen based compound 24 IS 7809(Part 1):1975 Pressure sensitive adhesive tapes for electrical purposes: Part 1 General requirements 25 IS 7809(Part 2):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 2 Methods of test 26 IS 7809(Part 3):Sec 1):1986 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Requirements for individual materials, Section 1 Plasticized polyvinylchloride tapes with non-thermosetting adhesive (first revision) 27 IS 7809(Part 3/Sec 2):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive 28 IS 7809(Part 3/Sec 3):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive 29 IS 7809(Part 3/Sec 4):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive 30 IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper, creped with thermosetting adhesive	17	IS 5596:1970		Oct 2005	
20 IS 6659:1976 Electronic grade ceramic materials (first revision) Oct 2006  21 IS 7084:1973 Bitumen based filling compounds for electrical purposes  22 IS 7571:1974 Methods of tests for ceramic for telecommunication and allied purposes  23 IS 7755:1975 High tension insulating cotton tape impregnated with bitumen based compound  24 IS 7809(Part 1):1975 Pressure sensitive adhesive tapes for electrical purposes: Part 1 General requirements  25 IS 7809(Part 2):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 2 Methods of test  26 IS 7809(Part 3/Sec 1):1986 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Requirements for individual materials, Section 1 Plasticized polyvinylchloride tapes with non-thermosetting adhesive (first revision)  27 IS 7809(Part 3/Sec 2):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive  28 IS 7809(Part 3/Sec 4):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive  29 IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive  30 IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper with	18	IS 5711:1970	Vulcanized fibre rods and tubes for electrical purposes	Apr 2003	
Bitumen based filling compounds for electrical purposes  IS 7671:1974 Methods of tests for ceramic for telecommunication and allied purposes  IS 7755:1975 High tension insulating cotton tape impregnated with bitumen based compound  Apr 2003  IS 7809(Part 1):1975 Pressure sensitive adhesive tapes for electrical purposes: Part 1 General requirements  IEC 60454-1(1974) Purposes: Part 1 General requirements  Fressure sensitive adhesive tapes for electrical purposes: Part 2 Methods of test  IS 7809(Part 2):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Requiremets for individual materials, Section 1 Plasticized polyvinylchloride tapes with non-thermosetting adhesive (first revision)  Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive  IS 7809(Part 3/Sec 2):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive  IS 7809(Part 3/Sec 4):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive  IS 7809(Part 3/Sec 4):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive  IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Polyester film tapes (PETP) with non-thermosetting adhesive	19	IS 6230:1970	Woven asbestos tape for electrical insulating purposes	Apr 2003	
purposes  22 IS 7571:1974 Methods of tests for ceramic for telecommunication and allied purposes  23 IS 7755:1975 High tension insulating cotton tape impregnated with bitumen based compound  24 IS 7809(Part 1):1975 Pressure sensitive adhesive tapes for electrical purposes: Part 1 General requirements  25 IS 7809(Part 2):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 2 Methods of test  26 IS 7809(Part 3/Sec 1):1986 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Requirements for individual materials. Section 1 Plasticized polyvinylchloride tapes with non-thermosetting adhesive (first revision)  27 IS 7809(Part 3/Sec 2):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials. Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive  28 IS 7809(Part 3/Sec 3):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with non-thermosetting adhesive  29 IS 7809(Part 3/Sec 4):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive  30 IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive  30 IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper with	20	IS 6659:1976	Electronic grade ceramic materials (first revision)	Oct 2006	
and allied purposes  23 IS 7755:1975 High tension insulating cotton tape impregnated with bitumen based compound  24 IS 7809(Part 1):1975 Pressure sensitive adhesive tapes for electrical purposes: Part 1 General requirements  25 IS 7809(Part 2):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 2 Methods of test  26 IS 7809(Part 3/Sec 1):1986 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Requirements for individual materials, Section 1 Plasticized polyvinylchloride tapes with non-thermosetting adhesive (first revision)  27 IS 7809(Part 3/Sec 2):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive  28 IS 7809(Part 3/Sec 3):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive  29 IS 7809(Part 3/Sec 4):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive  30 IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper, creped with materials, Section 5 Cellulosic paper with	21	IS 7084:1973		Mar 2008	
impregnated with bitumen based compound  24	22	IS 7571:1974		Oct 2005	
IEC 60454-1(1974)   purposes: Part 1 General requirements     IS 7809(Part 2):1977   Pressure sensitive adhesive tapes for electrical purposes: Part 2 Methods of test     IEC 60454-2(1974)   Purposes: Part 2 Methods of test     IEC 60454-2   Pressure sensitive adhesive tapes for electrical purposes: Part 3 Requirements for individual materials, Section 1 Plasticized polyvinylchloride tapes with non-thermosetting adhesive (first revision)     IS 7809(Part 3/Sec 2):1981   Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive     IS 7809(Part 3/Sec 3):1981   Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive     IS 7809(Part 3/Sec 4):1977   Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive     IS 7809(Part 3/Sec 5):1977   Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive	23	IS 7755:1975		Apr 2003	
IEC 60454-2(1974)   purposes: Part 2 Methods of test	24	· · · · · · · · · · · · · · · · · · ·		Apr 2003	2
purposes: Part 3 Requiremets for individual materials, Section 1 Plasticized polyvinylchloride tapes with non-thermosetting adhesive (first revision)  Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive  Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive  Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive  Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive  Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper with	25	· · ·		Oct 2006	1
purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film tapes (PETP) with thermosetting adhesive  28 IS 7809(Part 3/Sec 3):1981 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive  29 IS 7809(Part 3/Sec 4):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive  30 IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper with	26		purposes: Part 3 Requiremets for individual materials, Section 1 Plasticized polyvinylchloride	Oct 2006	1
purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with non-thermosetting adhesive  29 IS 7809(Part 3/Sec 4):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive  30 IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper with	27	IS 7809(Part 3/Sec 2):1981	purposes: Part 3 Specifications for individual materials, Section 2 Requirements for polyester film	Oct 2006	
purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with thermosetting adhesive  30 IS 7809(Part 3/Sec 5):1977 Pressure sensitive adhesive tapes for electrical purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper with	28	IS 7809(Part 3/Sec 3):1981	purposes: Part 3 Specifications for individual materials, Section 3 Polyester film tapes (PETP) with	Oct 2006	
purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper with	29	IS 7809(Part 3/Sec 4):1977	purposes: Part 3 Specifications for individual materials, Section 4 Cellulosic paper, creped with	Apr 2003	
	30	IS 7809(Part 3/Sec 5):1977	purposes: Part 3 Specifications for individual materials, Section 5 Cellulosic paper with	Oct 2006	

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| INDICATES EQUIVALENT STANDARDS

		Part 3 Specifications for individual materials, Section 4 Rigid mica materials for heating equipment		
45	IS 9299(Part 3/Sec 4):1982	Insulating materials based on built-up mica or treated mica paper:	Apr 2003	
44	IS 9299(Part 3/Sec 3):1982	Insulating materials based on built-up mica or treated mica paper: Part 3 Specifications for individual materials, Section 3 Flexible mica flake tape for insulation of electrical machines	Apr 2003	1
43	IS 9299(Part 3/Sec 2):1982	Insulating materials based on built-up mica or treated mica paper: Part 3 Specifications for individual materials, Section 2 Moulding mica materials for electrical purposes	Oct 2006	
42	IS 9299(Part 3/Sec 1):1979   IEC 60371-3-1(1973)	Insulating materials based on built-up mica or treated mica paper: Part 3 Specifications for individual materials, Section 1 Rigid mica material for commutator separators	Apr 2003	
41	IS 9299(Part 2):1992   IEC 60371-2(1987)	Insulating materials based on built-up mica or treated mica paper: Part 2 Methods of test (first revision)	Apr 2003	
40	IS 9299(Part 1):1979   IEC 60371-1(1972)	Insulating materials based on built-up mica or treated mica paper: Part 1 Definitions and general requirements	Oct 2006	
39	IS 9045:1979   ISO 5023(1977)	Thermal classification of phlogopite mica splittings	Oct 2006	
38	IS 9044:1979   ISO 5972(1978)	Method of measuring thickness of mica blocks, thins, films and splittings	Oct 2006	
37	IS 9043:1979   ISO 444(1965)	Method for grading (by size) of phlogopite mica blocks, thins and splittings	Oct 2006	
36	IS 8570:1977	Press paper for electrical purposes	Oct 2006	
35	IS 8516:1977   IEC 60426	Methods of test for determining electrolytic corrosion with insulating materials	Oct 2006	
34	IS 8504(Part 4):1994   IEC 60216-3	Guide for determination of thermal endurance properties of electrical insulating materials: Part 4 Instructions for calculating the thermal endurance profile	Apr 2004	
33	IS 8504(Part 3):1994   IEC 60216-3	Guide for determination of thermal endurance properties of electrical insulating materials: Part 3 Statistical methods	Apr 2004	
32	IS 8504(Part 2):1983   IEC 60216-2(1974)	Guide for determination of thermal endurance properties of electrical insulating materials: Part 2 List of materials and available tests	Oct 2005	
31	IS 8504(Part 1):1994 / IEC 60216-1 (1990)	Guide for determination of thermal endurance properties of electrical insulating materials: Part 1 General guidelines for ageing procedures & evaluation of test results (first revision)	Apr 2004	

46	IS 9299(Part 3/Sec 5):1992	Insulating materials based on built up mica or treated mica paper: Part 3 Specification for individual meterials, Section 5, Flexible mica materials in sheet form	Apr 2003	
47	IS 9299(Part 3/Sec 6):1993	Insulating materials based on built-up mica or treated mica paper: Part 3 Specifications for individual materiaals, Section 6 Glass backed mica paper with B-stage epoxy resin bond	Apr 2003	1
48	IS 9299(Part 3/Sec 7):1992	Insulating materials based on built-up mica or treated mica paper: Part 3 Specification for individual material, Section 7 Mica paper	Apr 2003	
49	IS 9335(Part 1):1979   IEC 60554-1(1977)	Cellulosic papers for electrical purposes: Part 1 Definitions and general requirements	Oct 2006	
50	IS 9335(Part 2):1998 / IEC 60554-2(2001)	Cellulosic papers for electrical purposes: Part 2 Methods of test (superseding IS:2188)	Oct 2006	
51	IS 9335(Part 3/Sec 1):1984   IEC 60554-3-1	Cellulosic papers for electrical purposes: Part 3 Specifications for individual materials, Section 1 General purposes electrical paper	Oct 2006	1
52	IS 9335(Part 3/Sec 2):1985   IEC 60554-3-2	Cellulosic papers for electrical purposes: Part 3 Specifications for individual materials, Section 2 Capacitor paper	Oct 2006	
53	IS 9335(Part 3/Sec 3):1984   IEC 60554-3-3(1980)	Cellulosic papers for electrical purposes: Part 3 Specifications for individual materials, Section 3 Crepe paper	Oct 2006	
54	IS 9335(Part 3/Sec 4):1984   IEC 60554-3-4(1979)	Cellulosic papers for electrical purposes: Part 3 Specifications for individual materials, Section 4 Electrolytic capacitor paper	Oct 2006	
55	IS 9335(Part 3/Sec 5):1985   IEC 60554-3-5	Cellulosic papers for electrical purposes: Part 3 Specifications for individual materials, Section 5 Special papers	Oct 2006	1
56	IS 9455:1980	Classification of muscovite mica blocks, thins and films based on electrical properties	Oct 2006	
57	IS 9502:1980   ISO 5816-1(1979)	Muscovite mica components for electronic equipment	Oct 2006	
58	IS 9947:1981   IEC 60587(1977)	Test methods for evaluating resistance to tracking and erosion of electrical insulating materials used under severe ambient conditions	Apr 2003	
59	IS 10026(Part 1):1998   IEC 60464-1(1976)	Insulating varnishes containing solvents: Part 1Definitions and general requirements (first revision)	May 2003	
60	IS 10026(Part 2):1999   IEC 60464-2(19860	Insulating varnishes containing solvents: Part 2 Methods of tests(first revision)	Aug 2004	
61	IS 10026(Part 3/Sec 1):1999   IEC 60464-3-1(1986)	Insulating varnishes containing solvents: Part 3 Specifications for individual materials, Section1Requirements for cold curing varnishes (first revision)	Feb 2004	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

* 11	NDICATES STANDARDS UNDER REVISION	** INDICATES STANDARDS TO BE REVISED		
75	IS 11182(Part 2):1984   IEC 60611(1978)	Guide for evaluation of insulation systems of electrical equipment: Part 2 Thermal endurance test procedure	Oct 2006	
74	IS 11182(Part 1):1984   IEC 60505(1975)	Guide for evaluation of insulation systems of electrical equipment: Part 1 Identification, evaluation and ageing mechanisms	Oct 2006	
73	IS 10581:1983   IEC 60589(1977)	Methods of test for determination of ionic impurities in electrical insulating materials by extraction with liquids	Oct 2005	
72	IS 10333:1982	Epoxy resin systems for cast resin insulated power and control cable joints and terminations upto and including 11 kV	Apr 2003	
71	IS 10192:1982	Synthetic resin bonded glass fibre (SRBGF) sheets for electrical purposes	Oct 2005	1
70	IS 10163(Part 1):1982   IEC 60377-1(1973)	Recommended methods of tests for the determination of dielectric properties of insulating materials at frequencies above 300 MHz: Part 1 General	Apr 2003	
69	IS 10026(Part 3/Sec 9):1986	Insulating varnishes containing solvents: Part 3 Specifications for individual materials, Section 9 Baking varnishes with temperature index 130 for magnetic core sheets	Apr 2003	
68	IS 10026(Part 3/Sec 8):1986	Insulating varnishes containing solvents: Part 3 Specifications for individualmaterials, Section 8 Baking varnishes with temperature index 200	Apr 2003	
67	IS 10026(Part 3/Sec 7):1983	Insulating varnishes containing solvents: Part 3 Specifications for individual materials, Section 7 Baking varnishes with temperature index 180	Oct 2006	1
66	IS 10026(Part 3/Sec 6):1983	Insulating varnishes containing solvents: Part 3 Specifications for individual materials, Section 6 Baking varnishes with temperature index 155	Oct 2006	1
65	IS 10026(Part 3/Sec 5):1983	Insulating varnishes containing solvents: Part 3 Specifications for individual materials, Section 5 Baking varnishes with temperature index 130	Oct 2006	1
64	IS 10026(Part 3/Sec 4):1983	Insulating varnishes containing solvents: Part 3 Specifications for individual materials, Section 4 Baking varnishes with temperature index 120	Oct 2006	1
63	IS 10026(Part 3/Sec 3):1983	Insulating varnishes containing solvents: Part 3 Specifications for individual materials, Section 3 Air drying varnishes with temperature index 130	Oct 2006	1
62	IS 10026(Part 3/Sec 2):1999   IEC 60464-3-2(1989)	Insulating varnishes containing solvents: Part 3 Specifications for individual materials, Section 2 Requirements for hot curing varnishes (first revision)	Jan 2004	

10

/ INDICATES EQUIVALENT STANDARDS

/ INDICATES DUAL NUMBER STANDARDS

76	IS 11182(Part 3/Sec 1):1986   IEC 60727-1(1982)	Guide for evaluation of insulation systems of electrical equipment: Part 3 Electrical endurance test procedures, Section 1 General considerations and evaluation procedures based on normal distributions	Oct 2006	
77	IS 11182(Part 3/Sec 2):1996   IEC 60727-2(1993)	Guide for evaluation of insulation systems of electrical equipments: Part 3 Electrical endurance test procedures Section 2 evaluation procedure based on extreme value distribution	Oct 2006	
78	IS 11182(Part 5):1993 / IEC 60941(1988)	Guide for evaluation of insulation system of electrical equipment: Part 5 Mechanical endurance functional tests	Dec 2003	
79	IS 11182(Part 6):1986	Guide for evaluation of insulation systems of electrical equipment: Part 6 Performance evaluation based on service experience and functional tests	Oct 2006	
80	IS 11182(Part 7/Sec 1):1986	Guide for evaluation of insulation systems of electrical equipment: Part 7 Multifactor functional testing, Section 1 Test procedures	Oct 2006	
81	IS 11221:1984   IEC 60343(1970)	Recommended test methods for determining the relative resistance of insulating materials to breakdown by surface discharges	Oct 2006	
82	IS 11256(Part 1):1985   IEC 60370(1971)	Method of test for determination of thermal endurance of insulating varnishes: Part 1 Electric strength method	Oct 2006	
83	IS 11256(Part 2):1985	Method of test for determination of thermal endurance of insulating varnishes: Part 2 Measurement of loss of mass	Oct 2006	
84	IS 11256(Part 3):1985   IEC 60290(1969)	Methods of test for determination of thermal endurance of insulating varnishes:Part 3 Bond strength by helical coil method	Oct 2006	
85	IS 11297(Part 1):1985	Varnished fabrics for electrical purposes: Part 1 Definitions and general requirements	Oct 2006	1
86	IS 11297(Part 2):1988	Varnished fabrics for electrical purposes: Part 2 Methods of tests	Oct 2005	
87	IS 11297(Part 3/Sec 1):1988	Varnished fabrics for electrical purposes: Part 3 Specifications for individual materials, Section 1 Glass fabric backed varnished fabrics	Oct 2005	
88	IS 11298(Part 1):1985   IEC 60674-1(1980)	Plastic films for electrical purposes: Part 1 Definitions and general requirements	Oct 2006	
89	IS 11298(Part 2):1999 / IEC 60674-2(1988)	Plastic films for electrical purposes: Part 2 Methods of test (first revision)	Jan 2004	
90	IS 11298(Part 3/Sec 1):1991	Plastic films for electrical purposes: Part 3 Specifications for individual materials, Section 1 Polypropylene film for capacitors (first revision)	Oct 2005	
91	IS 11298(Part 3/Sec 2):1999	Plastic films for electrical purposes: Part 3 Specifications for individual materials, Section 2 Metallized polypropylene films	Jan 2004	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

92 IS 11298(Pa / IEC 60674-3	rt 3/Sec 3):1998 -2 (1992)	Plastic films for electrical purposes:Part 3 Specifications for individual materials,Section 3 Requirements for balanced biaxially oriented Polyethylene Terephalate(PET) films used for electrical insulation	Jul 2003	
93 IS 11298(Pa / IEC 60674-3	rt 3/Sec 4):1998 -3(1992)	Plastic films for electricl purposes: part 3 Specification for individula mterials, Section 4 Requirements for polycabonate (PC) films used or electrical insulation	Jul 2003	
94 IS 11298(Pa / IEC 60647-3	rt 3/Sec 8):1998 -7(1992)	Plastic films or electrical purposes: Part 3 Speciication for individual materils, Section 8 Requirements forfluoroethylene (FEP) films used for electricl insultion	Jul 2003	
95 IS 11298(Pa / IEC60674-3-	rt 3/Sec 5-7):1998 -4to6(1993	Plastic Films for Electrc Purposes Part 3 Specification for Individual Materials Section 5-7 Requirements for Polyimide Films	Jul 2003	
96 IS 11654(Pa   IEC 60684-1	•	Flexible insulating sleeving: Part 1 Definitions and general requirements	Oct 2006	
97 IS 11654(Pa	rt 2):1986	Flexible insulating sleeving: Part 2 Methods of tests	Oct 2006	
98 IS 11654(Pa	rt 3/Sec 1):1988	Flexible insulating sleeving: Part 3 Specifications for individual types of sleevings, Section 1 General purpose grade sleeving with temperature index 90	Oct 2005	
99 IS 11654(Pa	rt 3/Sec 103):1989	Flexible insulating sleevings: Part 3 Specifications for individual types of sleevings, Section 103 General purpose grade sleeving with unilateral tolerances with temperature index 90	Oct 2005	
100 IS 11654(Pa	rt 3/Sec 403):1989	Flexible insulating sleeving: Part 3 Specifications for individual types of sleevings, Section 403 Glass textile sleeving with acrylic based coating - High breakdown strength	Oct 2005	1
101 IS 11654(Pa	rt 3/Sec 404):1989	Flexible insulating sleeving: Part 3 Specifications for individual types of sleevings, Section 404 Glass textile sleeving with acrylic based coating - Medium breakdown strength	Oct 2005	
102 IS 11654(Pa	rt 3/Sec 405):1989	Flexible insulating sleeving: Part 3 Specifications for individual types of sleevings, Section 405 Glass textile sleeving with acrylic based coating - Lower breakdown strength	Oct 2005	
103 IS 11654(Pa	rt 3/Sec 406):1989	Flexible insulating sleeving: Part 3 Specifications for individual type of sleevings, Section 406 Glass textile sleeving with PVC based coating - High breakdown strength	Oct 2005	1
104 IS 11654(Pa	rt 3/Sec 407):1989	Flexible insulating sleeving: Part 3 Specifications for individual type of sleevings, Section 407 Glass textile sleeving with PVC based coating - Medium breakdown strength	Oct 2005	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

105	IS 11654(Part 3/Sec 408):1989	Flexible insulating sleeving: Part 3 Specifications for individual type of sleevings, Section 408 Glass textile sleeving with PVC based coating - Lower breakdown strength	Oct 2005
106	IS 11731(Part 1):1986   IEC 60107(1981)	Methods of test for determination of flammability of solid electrical insulating materials when exposed to an igniting source: Part 1 Horizontal specimen method	Oct 2006
107	IS 11731(Part 2):1986   IEC 60707(1981)	Methods of test for determination of flammability of solid electrical insulating materials when exposed to aan igniting source: Part 2 Vertical specimen method	Oct 2006
108	IS 11755:1986   IEC 60345(1971)	Method of test for determination of electrical resistance and resistivity of insulating materials at elevated temperatures	Oct 2006
109	IS 11756:1986   IEC 60648(1979)	Method of test for co-efficients of friction of plastic film and sheeting for use as electrical insulation	Oct 2006
110	IS 12316(Part 1):1988	Non-cellulosic papers for electrical purposes: Part 1 Definitions and general requirements	Oct 2005
111	IS 12316(Part 2):1988	Non-cellulosic papers for electrical purposes: Part 2 Methods of test	Oct 2005
112	IS 12316(Part 3/Sec 1):1988	Non-cellulosic papers for electricl purposes: Part 3 Requirements for individual materials, Section 1 Unfilled aramid (Aromatic Polyamide) Papers, calendered	Oct 2005
113	IS 12316(Part 3/Sec 2):1988	Non-cellulosic papers for electrical purposes: Part 3 Requirements for individul materials, Section 2 Unfilled aramid (Aromatic Polyamide) Paper, uncalendered	Oct 2005
114	IS 12317(Part 1):1988   IEC 60672-1(1980)	Ceramic and glass insulating materials for telecommunication and allied purposes: Part 1 General requirements and classification of ceramic and glass insulating materials	Oct 2005
115	IS 12747(Part 1):1989   IEC 60626-1(1979)	Combined flexible materials for electrical insulation: Part 1 Definitions and general requirements	Oct 2005
116	IS 12747(Part 2):1989   IEC 60626-2(1978)	Combined flexible materials for electrical insulation: Part 2 Methods of test	Oct 2005
117	IS 12747(Part 3):1998 / IEC 60626-3(1996)	Combined flexible materials for electrical insulation: Part 3 Specifications for individual materials	Nov 2003
118	IS 13066:1991	Prepreg based on glass woven fabric for electrical applications	Oct 2006
119	IS 13233:1991	Low voltage high current arc resistnce test - Method of test	Oct 2006
120	IS 13335:1992	Muscovite mica scrap for mica paper	Apr 2003
121	IS 13357:1992	Methods of grading and visual classification of muscovite mica splittings	Apr 2003

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

2 DOC.ETD 2(6013) Combined flexible materials for electrical insulation -

Part 2 Method of test [First Revison of IS 12747(Part

2)]

## DRAFT STANDARDS FINALIZED BUT NOT YET UNDER PRINT

1 DOC.ETD 2(5732) Specifications for pressure-sensitive adhesive tapes

for electrical purposes Part 1: General requirements

(IEC 454-1:1992)

2 DOC.ETD 2(5736) Electrical insulating materials – Properties of thermal

endurance – Part 1: Ageing procedures and evaluation of test results [Second Revision of IS

8504(Part 1)](IEC 60216-1)

#### DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

1 DOC.ETD 2(5737) Varnishes used for electrical insulation – Part 1:

Definition and general requirements [Second Revision

of IS 10026(Part 1)] (IEC 60464-1)

#### ETD 3 FLUIDS FOR ELECTROTECHNICAL APPLICATIONS

**SCOPE -** To prepare product specifications, test methods as well as maintenance and use guides for liquid and gaseous dielectric. Also to prepare specifications and maintenance and use guides for lubricants and control fluids for turbines, generators and control systems as well as to assist in the preparations of test methods for such fluids

SI. No	. IS Number/ DOC Number	Title	Reaffirm	_
STAN	IDARDS PUBLISHED		Date	Am
1	IS 335:1993	New insulating oils (fourth revision)	Mar 2005	1
2	IS 1866:2000   IEC 60296(1982)	Code of practice for maintenance and supervision of mineral insulating oil in equipment (third revision)	Dec 2005	1
3	IS 6103:1971	Method of test for specific resistance (resistivity) of electrical insulating liquids	Oct 2006	1
4	IS 6104:1971	Method of test for interfacial tension of oil against water by the ring method	Oct 2006	1
5	IS 6262:1971	Method of test for power factor and dielectric constant of electrical insulating liquids	Oct 2006	
6	IS 6792:1992   IEC 60156(1963)	Method for determination of electric strength of insulating oils (first revision)	Apr 2003	2
7	IS 6855:2003	Method of sampling for liquid dielectrics		
8	IS 9434:1992   IEC 60567(1977)	Guide for sampling and analysis of free and dissolved gases and oil from oil-filled electrical equipment (first revision)	Apr 2003	
9	IS 9960:1981	Electrical grade castor oil for use as capacitor impregnant	Oct 2006	
10	IS 10593:2006 / IEC 60599(1999)	Mineral oil-impregnated eletrical equipment in service - Guide to the interpretation of dissolved and free gases analysis (second revision)		
11	IS 11549:1986	Impregnating oils and compounds for paper insulated cables upto 33 kV	Apr 2003	
12	IS 11697:1986	Guide for determination of lightning impulse electric strength of insulating liquids	Oct 2006	
13	IS 12026(Part 1):1986   IEC 60590(1977)	Guide for the determination of the aromatic hydrocarbon content of new insulating oils: Part 1 Absorption chromatographic method	Oct 2006	
14	IS 12026(Part 2):1986	Guide for the determination of the aromatic hydrocarbon content of new insulating oils: Part 2 Infra red spectrophotometric method	Oct 2006	
15	IS 12177:1987	Methods of tests for oxidative ageing of electrical insulation of petroleum oils by the open beaker method	Apr 2003	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

16	IS 12422:1988   IEC 60474(1977)	Test method for oxidation stability of inhibited mineral insulating oils	Apr 2003	
17	* IS 12463:1988	Inhibited mineral insulating oils	Apr 2003	
18	IS 12475(Part 1):1988	Gassing of insulating liquid under electric stress and ionization: Part 1 Method of determination of gassing rate under hydrogen atmosphere	Apr 2003	
19	IS 12475(Part 2):1988	Gassing of insulating liquids under electric stress and ionization: Part 2 Method of determination of gassing rate under nitrogen atmosphere	Apr 2003	
20	IS 12958:1990	Oxidation stability of inhibited mineral insulating oil by rotating bomb - Method of test	Oct 2006	
21	IS 13067:1991	Impregnants for power capacitors	Oct 2006	
22	IS 13072:1991 / IEC 60376 (1971)	Sulphur hexafluoride for electrical purposes	Oct 2006	
23	IS 13155:1991	Method of test for carbon type analysis of mineral oils by infra-red spectrophotometry	Oct 2006	
24	IS 13236:1991 / IEC 60970(1989)	Methods for counting and sizing particles in insulating liquids	Oct 2006	
25	IS 13503:1992 / IEC 61039(1990)	General classification of insulating liquids	Apr 2003	
26	IS 13567:1992	Determination of water in insulating liquids and in oil- impregnated paper and pressboard by automatic coulometric Karl Fischer titration - Method of test	Apr 2003	
27	IS 13631:2000   IEC 60666(1979)	Method of test for detection and determination of antioxidant additives in insulating oils	Apr 2003	1
28	IS 15668:2006 / IEC 61198(1993)	Mineral insulating oils - Methods for the determination of 2-furfural and related compounds		
DRAF	T STANDARDS ISSUED IN WIDE	CIRCULATION		

## DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

1 DOC.ETD 3(5658) Method of test for carbon type analysis of mineral oils by infra-red spectrophotometry (first revision of IS 13155)

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

## ETD 5 ELECTRIC FANS

SI. No. IS Number/ DOC Number

**SCOPE -** To prepare standards for household fans and associated controls and Industrial fans

Title

Reaffirm

51. NO	. 15 Number/ DOC Number	TITLE	Reattirm	
			Date	Am
STAN	DARDS PUBLISHED			
1	IS 302(Part 2/Sec 80):2003   IEC 60335-2-80	Safety of household and similar electrical appliances: Part 2 Particular requirements, Sec 80 Fans (Superseding IS 12155:1987)		
2	* IS 374:1979	Electric ceiling type fans and regulators (third revision)	Sep 2005	6
3	* IS 555:1979	Electric table type fans and regulators (third revision)	Jul 2005	2
4	* IS 1169:1967	Electric pedestal type fans and regulators (first revision)	Aug 2004	6
5	IS 2312:1967   IEC 60665(1981)	Propeller type ac ventilating fans (first revision)	Jul 2005	8
6	IS 2997:1964	Air circulator type electric fans and regulators	Jul 2005	8
7	IS 3588:1987	Electric axial flow fans (first revision)	Aug 2004	1
8	IS 3963:1987	Roof extractor units (first revision)	Aug 2004	1
9	IS 4327:1967	Electric fans and regulators for use in ships	Aug 2004	4
10	IS 4894:1987	Centrifugal fans (first revision)	Aug 2004	ļ
11	IS 6272:1987	Industrial cooling fans (man coolers) (first revision)	Aug 2004	2
12	IS 6680:1992   IEC 60342-1	Railway carriage fans (first revision)	Aug 2004	ļ
13	IS 11037:1984	Electronic type fan regulators	Aug 2005	3
14	IS 13368:1992	Method of test for double inlet centrifugal fans (industrial type)	Aug 2004	Ļ
DRAF	T STANDARDS FINALIZED BU	T NOT YET UNDER PRINT		
1	DOC.ETD 5(5095) / IEC 60879	Electric ceiling type fans and regulators (fourth revision of IS 374)		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

#### DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

1	DOC.ETD 5(5891)	Propeller type ac ventilating fans - Specification (second revision of IS 2312)
2	DOC.ETD 5(5892)	Specification for air circulator type electric fans regulators (first revision of IS 2997)
3	DOC.ETD 5(5893)	Electric fans and regulators for use in ships- Spec ification (first revision of IS 4327)

#### DRAFT STANDARDS APPROVED FOR WIDE CIRCULATION

	1	DOC.ETD 5(5432	) Electric pedestal type fans and regulators
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(second revision of IS 1169)

2 DOC.ETD 5(5433) Electric table type fans and regulators

(fourth revision of IS 555)

#### DRAFT STANDARDS FORMULATED

1 DOC.ETD 5(5996) Specification for Table wall, Pedestal type fans and

Regulators

## ETD 6 ELECTRICAL INSULATORS AND ACCESSORIES

**SCOPE -** To prepare standards regarding insulated bushing, insulators for overhead lines, insulators for sub-stations and jointing accessories which are integral parts of insulators

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STANI	DARDS PUBLISHED			
1	IS 283:1976	Porcelain insulators for telegraph and telephone lines (third revision)	Jul 2006	4
2	IS 731:1971	Porcelain insulators for overhead power lines with a nominal voltage greater than 1000 V (second revision)	Jul 2006	6
3	IS 1441:1989	Insulator stalks for telegraph and telephone lines (second revision)	Apr 2004	
4	IS 1445:1977	Porcelain insulators for overhead power lines with a nominal voltage up to andincluding 1 000 V (second revision)	Apr 2004	5
5	IS 2099:1986	Bushings for alternating voltages above 1 000 Volts (second revision)	Apr 2003	2
6	IS 2486(Part 1):1993	Metal fittings of insulators for overhead power lines with nominal voltage greater than 1000 V - Specification:  Part 1 General requirements and tests (first revision)	Apr 2003	
7	IS 2486(Part 2):1989   IEC 120 (1984)	Insulator fittings for overhead power lines with nominal voltage greater than 1000 V - Specification : Part 2 Dimensional requirements (second revision)	Apr 2004	
8	IS 2486(Part 3):1974   IEC 372-1 (1971)	Specification for Insulator fittings for overhead power lines with a nominal voltage greter than 1 000 Volts: Part 3 Locking devices	Jul 2006	
9	IS 2486(Part 4):1981   IEC 372-2 (1976)	Specification for Insulator fittings for overhead power lines with a nominal voltage greater than 1000 V: Part 4 Test for locking devices	Jul 2006	
10	IS 2544:1973   IEC 168 (1964)	Porcelain post insulators for systems with nominal voltage greater than 1000 Volts (first revision)	Jul 2006	4
11	IS 3188:1980	Characteristics of string insulator units (first revision)	Apr 2004	
12	IS 3347(Part 1/Sec 1):1979	Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 1 Upto and including 1 kV, Section 1 Porcelain parts (first revision)	Apr 2004	. 1
13	IS 3347(Part 1/Sec 2):1979	Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 1 Up to and including 1 kV, Section 2 Metal parts (first Revision)	Apr 2004	3

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

14 IS 3347(Part 2/Sec 1):1979 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 2 3.6 kV bushings, Section 1 Porcelain transformer bushings for use in lightly polluted atmospheres: Part 2 3.6 kV bushings. Section 2 Metal parts (first revision)  16 IS 3347(Part 3/Sec 1):1988 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 3 17.5 kV bushings. Section 1 Porcelain transformer bushings for use in lightly polluted atmospheres: Part 3 17.5 kV bushings. Section 1 Porcelain parts (second revision)  17 IS 3347(Part 3/Sec 2):1982 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 3 17.5 kV bushings. Section 1 Porcelain parts (second revision)  18 IS 3347(Part 4/Sec 1):1988 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 4 2 kV bushings. Section 1 Porcelain parts (Second revision)  19 IS 3347(Part 4/Sec 2):1982 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 4 2 kV bushings. Section 2 Metal Parts (first revision)  20 IS 3347(Part 5/Sec 1):1979 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 4 2 kV bushings. Section 2 Metal Parts (first revision)  21 IS 3347(Part 5/Sec 2):1999 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 3 kV bushings. Section 1 Porcelain parts (second revision)  22 IS 3347(Part 8/Sec 1):1988 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 3 kV bushings. Section 1 Porcelain parts (second revision)  23 IS 3347(Part 8/Sec 2):1992 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 3 kV bushings. Section 1 Porcelain parts  24 IS 4257(Part 1):1981 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings. Section 1 Porcelain parts  25 IS 4257(Part 2):1986 Dimensions for ca					
in lightly polluted atmospheres: Part 2 3.6 kV bushings, Section 2 Metal parts (first revision)  16 IS 3347(Part 3/Sec 1):1988 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 3 17.5 kV bushings, Section 1 Porcelain parts (second revision)  17 IS 3347(Part 3/Sec 2):1982 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 3 17.5 kV bushings, Section 2 Metal parts (first revision)  18 IS 3347(Part 4/Sec 1):1988 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 4 24 kV bushings, Section 2 Metal Parts (first revision)  19 IS 3347(Part 4/Sec 2):1982 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 4 24 kV bushings, Section 2 Metal Parts (first revision)  20 IS 3347(Part 5/Sec 1):1979 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 36 kV bushings, Section 1 Porcelain parts (second revision)  21 IS 3347(Part 8/Sec 2):1979 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 36 kV bushings, Section 2 Metal parts (first revision)  22 IS 3347(Part 8/Sec 1):1988 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 36 kV bushings, Section 2 Metal parts (first revision)  23 IS 3347(Part 8/Sec 2):1992 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings, Section 1 Porcelain parts  24 IS 4257(Part 1):1981 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings. Section 2 Metal parts  25 IS 4257(Part 1):1980 Dimensions for clamping arrangements for porcelain transformer bushings: Part 1 For 12 kV to 36 kV bushings. Section 2 Metal parts  26 IS 4318:1993 Solic ore porcelain insulators for overhead traction lines (first revision)  27 IS 5300(Part 1):1970 Dimensions of indoor and outdoor porcelain post insulators and post insulator	14	IS 3347(Part 2/Sec 1):1979	in lightly polluted atmospheres: Part 2 3.6 kV	Apr 2004	1
in lightly polluted atmospheres: Part 3 17.5 kV bushings, Section 1 Porcelain parts (second revision)  17 IS 3347(Part 3/Sec 2):1982 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 3 17.5 kV bushings, Section 2 Metal parts (first revision)  18 IS 3347(Part 4/Sec 1):1988 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 4 24 kV bushings, Section 1 Porcelain parts (Second revision)  19 IS 3347(Part 4/Sec 2):1982 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 4 24 kV bushings, Section 1 Porcelain parts (Second revision)  20 IS 3347(Part 5/Sec 1):1979 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 36 kV bushings, Section 1 Porcelain parts (second revision)  21 IS 3347(Part 5/Sec 2):1979 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 36 kV bushings, Section 1 Porcelain parts (second revision)  22 IS 3347(Part 8/Sec 1):1988 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 36 kV bushings, Section 2 Metal parts (first revision)  23 IS 3347(Part 8/Sec 1):1988 Dimensions for procelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings, Section 1 Porcelain parts  24 IS 4257(Part 1):1981 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings: Section 2 Metal parts  25 IS 4257(Part 2):1986 Dimensions for clamping arrangements for porcelain transformer bushings: Part 1 For 12 kV to 36 kV bushings (first revision)  26 IS 4318:1993 Solid core porcelain insulators for overhead traction lines (first revision)  27 IS 5300(Part 1):1970 Dimensions of indoor and outdoor porcelain post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	15	IS 3347(Part 2/Sec 2):1979	in lightly polluted atmospheres: Part 2 3.6 kV	Apr 2004	3
in lightly polluted atmospheres: Part 3 17.5 kV bushings, Section 2 Metal parts (first revision)  18	16	IS 3347(Part 3/Sec 1):1988	in lightly polluted atmospheres: Part 3 17.5 kV	Apr 2004	
in lightly polluted atmospheres: Part 4 24 kV bushings, Section 1 Porcelain parts (Second revision)  19	17	IS 3347(Part 3/Sec 2):1982	in lightly polluted atmospheres: Part 3 17.5 kV	Apr 2004	2
in lightly polluted atmospheres: Part 4 24 kV bushings, Section 2 Metal Parts (first revision  Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 36 kV bushings, Section 1 Porcelain parts (second revision)  21 IS 3347(Part 5/Sec 2):1979 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 36 kV bushings, Section 2 Metal parts (first revision)  22 IS 3347(Part 8/Sec 1):1988 Dimensions for procelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings, Section 2 Metal parts (first revision)  23 IS 3347(Part 8/Sec 2):1992 Dimensions for procelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings: Section 1 Porcelain parts  24 IS 4257(Part 1):1981 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings: Section 2 Metal parts  Dimensions for clamping arrangements for porcelain transformer bushings: Part 1 For 12 kV to 36 kV bushings (first revision)  25 IS 4257(Part 2):1986 Dimensions for clamping arrangements for porcelain transformer bushings: Part 2 For 72.5 kV and 123 kV bushings  26 IS 4318:1993 Solid core porcelain insulators for overhead traction lines (first revision)  27 IS 5300:1969 Specification for porcelain guy strain insulators  Dimensions of indoor and outdoor porcelain post insulator and post insulator system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators  Dimensions of indoor and outdoor porcelain post insulators and post insulator on post post insulator system with nominal voltage greater than 1000 V: Part 2 Outdoor	18	IS 3347(Part 4/Sec 1):1988	in lightly polluted atmospheres: Part 4 24 kV	Apr 2004	1
in lightly polluted atmospheres: Part 5 36 kV bushings, Section 1 Porcelain parts (second revision)  21 IS 3347(Part 5/Sec 2):1979 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 5 36 kV bushings, Section 2 Metal parts (first revision)  22 IS 3347(Part 8/Sec 1):1988 Dimensions for procelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings, Section 1 Porcelain parts  23 IS 3347(Part 8/Sec 2):1992 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings: Section 2 Metal parts  24 IS 4257(Part 1):1981 Dimensions for clamping arrangements for porcelain transformer bushings: Part 1 For 12 kV to 36 kV bushings (first revision)  25 IS 4257(Part 2):1986 Dimensions for clamping arrangements for porcelain transformer bushings: Part 2 For 72.5 kV and 123 kV bushings  26 IS 4318:1993 Solid core porcelain insulators for overhead traction lines (first revision)  27 IS 5300:1969 Specification for porcelain guy strain insulators  28 Apr 2004 Part 2004 Dimensions of indoor and outdoor porcelain post insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	19	IS 3347(Part 4/Sec 2):1982	in lightly polluted atmospheres: Part 4 24 kV	Apr 2004	3
in lightly polluted atmospheres: Part 5 36 kV bushings, Section 2 Metal parts (first revision)  22 IS 3347(Part 8/Sec 1):1988 Dimensions for procelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings, Section 1 Porcelain parts  23 IS 3347(Part 8/Sec 2):1992 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings: Section 2 Metal parts  24 IS 4257(Part 1):1981 Dimensions for clamping arrangements for porcelain transformer bushings: Part 1 For 12 kV to 36 kV bushings (first revision)  25 IS 4257(Part 2):1986 Dimensions for clamping arrangements for porcelain transformer bushings: Part 2 For 72.5 kV and 123 kV bushings  26 IS 4318:1993 Solid core porcelain insulators for overhead traction lines (first revision)  27 IS 5300:1969 Specification for porcelain guy strain insulators Apr 2004  28 IS 5350(Part 1):1970 Dimensions of indoor and outdoor porcelain post insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	20	IS 3347(Part 5/Sec 1):1979	in lightly polluted atmospheres: Part 5 36 kV	Apr 2004	1
in lightly polluted atmospheres: Part 8 52 kV bushings, Section 1 Porcelain parts  23 IS 3347(Part 8/Sec 2):1992 Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV bushings: Section 2 Metal parts  24 IS 4257(Part 1):1981 Dimensions for clamping arrangements for porcelain transformer bushings: Part 1 For 12 kV to 36 kV bushings (first revision)  25 IS 4257(Part 2):1986 Dimensions for clamping arrangements for porcelain transformer bushings: Part 2 For 72.5 kV and 123 kV bushings  26 IS 4318:1993 Solid core porcelain insulators for overhead traction lines (first revision)  27 IS 5300:1969 Specification for porcelain guy strain insulators Apr 2004  28 IS 5350(Part 1):1970 Dimensions of indoor and outdoor porcelain post insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	21	IS 3347(Part 5/Sec 2):1979	in lightly polluted atmospheres: Part 5 36 kV	Apr 2004	2
in lightly polluted atmospheres: Part 8 52 kV bushings: Section 2 Metal parts  24  IS 4257(Part 1):1981  Dimensions for clamping arrangements for porcelain transformer bushings: Part 1 For 12 kV to 36 kV bushings (first revision)  25  IS 4257(Part 2):1986  Dimensions for clamping arrangements for porcelain transformer bushings: Part 2 For 72.5 kV and 123 kV bushings  26  IS 4318:1993  Solid core porcelain insulators for overhead traction lines (first revision)  27  IS 5300:1969  Specification for porcelain guy strain insulators  Apr 2004  28  IS 5350(Part 1):1970  Dimensions of indoor and outdoor porcelain post insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	22	IS 3347(Part 8/Sec 1):1988	in lightly polluted atmospheres: Part 8 52 kV	Apr 2004	
transformer bushings: Part 1 For 12 kV to 36 kV bushings (first revision)  25  IS 4257(Part 2):1986  Dimensions for clamping arrangements for porcelain transformer bushings: Part 2 For 72.5 kV and 123 kV bushings  26  IS 4318:1993  Solid core porcelain insulators for overhead traction lines (first revision)  27  IS 5300:1969  Specification for porcelain guy strain insulators  Apr 2004  28  IS 5350(Part 1):1970  Dimensions of indoor and outdoor porcelain post insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	23	IS 3347(Part 8/Sec 2):1992	in lightly polluted atmospheres: Part 8 52 kV	Apr 2004	
transformer bushings: Part 2 For 72.5 kV and 123 kV bushings  26 IS 4318:1993 Solid core porcelain insulators for overhead traction lines (first revision)  27 IS 5300:1969 Specification for porcelain guy strain insulators Apr 2004  28 IS 5350(Part 1):1970 Dimensions of indoor and outdoor porcelain post insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators  29 ** IS 5350(Part 2):1973 Dimensions of indoor and outdoor porcelain post insulators  29 ** IS 5350(Part 2):1973 Dimensions of indoor and outdoor porcelain post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	24	IS 4257(Part 1):1981	transformer bushings: Part 1 For 12 kV to 36 kV	Apr 2004	1
lines (first revision)  27 IS 5300:1969 Specification for porcelain guy strain insulators Apr 2004  28 IS 5350(Part 1):1970 Dimensions of indoor and outdoor porcelain post insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators  29 ** IS 5350(Part 2):1973 Dimensions of indoor and outdoor porcelain post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	25	IS 4257(Part 2):1986	transformer bushings: Part 2 For 72.5 kV and 123 kV	Apr 2004	
28 IS 5350(Part 1):1970 Dimensions of indoor and outdoor porcelain post insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators  29 ** IS 5350(Part 2):1973 Dimensions of indoor and outdoor porcelain post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	26	IS 4318:1993		Apr 2003	
insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor post insulators  29 ** IS 5350(Part 2):1973  Dimensions of indoor and outdoor porcelain post insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	27	IS 5300:1969	Specification for porcelain guy strain insulators	Apr 2004	
insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	28	,	insulator and post insulator units for system with nominal voltage greater than 1000 V: Part 1 Indoor	Apr 2004	2
	29	** IS 5350(Part 2):1973	insulators and post insulator units for system with nominal voltage greater than 1000 V: Part 2 Outdoor	Apr 2004	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

30	IS 5350(Part 3):1971   IEC 273 (1968)	Dimensions of indoor and outdoor porcelain post insulators and post insulator units for system with nominal voltages greater than 1000 V: Part 3 Outdoor pedestal post insulators	Apr 2004	3
31	IS 5621:1980	Hollow insulators for use in electrical equipment (first revision)	Apr 2004	2
32	IS 7421:1988	Porcelain bushings for alternating voltage upto and including 1000 V (first revision)	Apr 2004	
33	IS 7648:1975	Silicone compound for application on high voltage porcelain insulators	Apr 2004	
34	IS 7935:1975	Insulator fittings for overhead power lines with a nominal voltage upto and including 1000 V	Jul 2006	3
35	IS 8263:1976	Methods for radio interference test on high voltage insulators	Apr 2004	
36	IS 8269:1976	Methods for switching impulse tests on high voltage insulators	Apr 2004	
37	IS 8603(Part 1):1977	Dimensions for porcelain transformer bushings for use in heavily polluted atmospheres: Part 1 12 kV and 17.5 kV bushings	Jul 2006	
38	IS 8603(Part 2):1977	Dimensions for porcelain transformer bushings for use in heavily polluted atmospheres: Part 2 24 kV buhsings	Jul 2006	
39	IS 8603(Part 3):1977	Dimensions for porcelain transformer bushings for use in heavily polluted atmospheres: Part 3 36 kV bushings	Jul 2006	1
40	IS 8603(Part 4):2003	Dimensions for porcelain transformers bushings for use in heavily polluted atmospheres: Part 4 52 kV bushings		
41	IS 8704:1995   IEC 507 (1991)	Artificial pollution on high voltage insulators to be used on ac systems (first revision)	Oct 2006	
42	IS 8765:1978	Ceramic insulating materials for electrical purposes	Apr 2004	1
43	IS 9431:1979	Indoor post insulators of organic material for systems with nominal voltages greater than 1 000 V upto and including 300 kV	Apr 2004	
44	IS 10136:1982	Code of practice for selection of disc insulator fittings for highest system voltages of 72.5 kV and above	Jul 2006	
45	IS 10314:1982	Dimensions for ceramic bushings for terminals	Jul 2006	
46	IS 12676:1989	Oil impregnated paper insulated condenser bushings - Dimensions and requirements	Jul 2006	
47	IS 13134:1992	Guide for the selection of insulators in respect of pollution conditions	Apr 2003	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

48	IS 13305:1992	Permissible limits of visual defects for insulating porcelains for electrical circuits	Apr 2003	
49	IS 13312:1992	Dimensions of porcelain oil filled transformer bushings (rated 52 kV) for medium polluted atmospheres	Apr 2003	
50	IS 15137:2002	Metal Connecting Lugs for Porcelain Transformer Bushings - Specification	Dec 2007	
FINALISED DRAFTS UNDER PRINT				
1	DOC.ETD 6(5331)	Dimensions for procelain transformers bushings for use heavily polluted atmospheres 12/17.5kV, 24 kV nd 36 kV [first revision of IS 8603 (Part 1, 2 and 3 combined)]		
DRAFT	STANDARDS FORMULATED			
1	DOC.ETD 6(5645)	Solid core porcelain insulators for overhead traction lines specification (second revision of IS 4318)		

## ETD 7 LOW VOLTAGE SWITCHGEAR & CONTROLGEAR

**SCOPE -** To prepare standards for switchgear and controlgear such as circuit breakers, switches, contactors, starters, disconnectors, bus bars, fuse combination units and semiconductors connectors and any switchgear assemblies for voltages upto and including 1 000 V ac or 1 200 V dc

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STAN	DARDS PUBLISHED			
1	IS 1356(Part 1):1972   IEC 60204-1	Electrical equipment of machine tools: Part 1 Electrical equipment of machines for general use (second revision)	Mar 2006	i
2	IS 2675:1983	Enclosed distribution fuseboards and cutouts for voltages not exceeding 1000 V (second revision)	Mar 2006	i
3	IS 5039:1983	Distribution pillars for voltages not exceeding 1 000 volts (first revision)	Mar 2006	i
4	IS 5578:1984   IEC 60391(1972)	Guide for marking of insulated conductors (first revision)	Mar 2006	1
5	IS 7118:1973	Recommendations for direction of movement for control devices operating electrical apparatus	Mar 2008	,
6	IS 8588(Part 1):1977	Thermostatic bimetals: Part 1 General requirements and methods of tests	Mar 2008	1
7	IS 8623(Part 1):1993 / IEC 60439-1(1985)	Specification for low voltage switchgear and controlgear assemblies: Part 1 Requirements for type-tested and partially type tested assemblies (first revision).	Mar 2008	,
8	IS 8623(Part 2):1993 / IEC 60439-2(1987)	Specification for low voltage switchgear and controlgear assemblies: Part 2 Particular requirements for busbar trunking systems (busways)-(first revision)	Mar 2008	ı
9	IS 8623(Part 3):1993 / IEC 60439-3(1990)	Low-voltage switchgear and controlgear assemblies: Part 3 Particular requirements for equipment where unskilled persons have access for their use.	Mar 2008	ı
10	IS 8828:1996 / IEC 60898:(1995)	Circuit-breakers for over current protection for household and similar installations (second revision)	Mar 2006	į
11	IS 10027:2000	Composite units of air-break switches and rewirable type fuses for voltages not exceeding 650 volt ac - Specification (first revision)	Mar 2005	ı
12	IS 10118(Part 1):1982	Code of practice for selection, installation and maintenance of switchgear and controlgear : Part 1 General	Mar 2006	i
13	IS 10118(Part 2):1982	Code of practice for selection, installation and maintenance of Switchgear and controlgear : Part 2 Selection	Mar 2006	i
14	IS 10118(Part 3):1982	Code of practice for selection, installation and maintenance of switchgear and controlgear : Part 3 Installation	Mar 2006	i
* INDIC	CATES STANDARDS UNDER REVISION	** INDICATES STANDARDS TO BE REVISED		
/ INDIC	CATES DUAL NUMBER STANDARDS	INDICATES EQUIVALENT STANDARDS		

1	5	IS 10118(Part 4):1982	Code of practice for selection, installation and maintenance of switchgear and controlgear : Part 4 Maintenance	Mar 2006	
1	6	* IS 11039:1983   IEC 60715(1981)	Requirements for mounting on rails in switchgear and controlgear installations	Mar 2005	
1	7	IS 12021:1987	Specification for control transformers for switchgear and controlgear for voltages not exceeding 1000 Volt ac	Mar 2005	2
1	8	* IS 12640(Part 1):2000 / IEC 61008-1(1996)	Residual current operated circuit-breakers for household and simililar uses: Part 1 circuit-breakers without integral overcurrent protection(RCCBs)	Mar 2005	
1	9	* IS 12640(Part 2):2001 / IEC 61009-1(1996)	Residual current operated circuit breakers for household and similar uses: Part 2 circuit breakers with integral overcurrent protection(RCBOs) [Superseding IS 12640:1988]	Mar 2006	
2	20	* IS 12974:1990   IEC 152-2(1982)	Semiconductor contactors	Mar 2005	
2	21	IS 13032:1991	Miniature circuit breaker boards for voltage upto and including 1 000 Volt ac	Mar 2006	1
2	22	* IS 13947(Part 1):1993 / IEC 60947-1(1988)	Low-voltage switchgear and controlgear: Part 1 General rules (superseding IS 2147 & 4237)	Mar 2008	
2	23	* IS 13947(Part 2):1993 / IEC 60947-2(1989)	LV Switchgear and controlgear: Part 2 Circuit breakers (superseding IS 2516 & its parts)	Mar 2008	1
2	24	* IS 13947(Part 3):1993 / IEC 60947-3(1990)	Low-voltage switchgear and controlgear: Part 3 Switches, disconnectors, switch-disconnectors and fuse combination unit (superseding IS 4064 (part 1 &2)	Mar 2008	
2	25	* IS 13947(Part 4/Sec 1):1993 / IEC 60947-4-1:1990	Low-Voltage switchgear and controlgear: Part 4 Contactors and motor starters, Section 1 Electromechanical contactors and motor starters[superseding IS 2959 and 8544 (all parts)]	Mar 2008	
2	26	IS 13947(Part 5/Sec 1):2004 / IEC 60947-5-1(1990)	Low-voltage switchgear and controlgear: Part 5 Control circuit devices and switching elements, Section 1 Electromechanical control circuit devices (first revision){Superseding IS 6875 (All parts)}		
2	27	IS 13947(Part 5/Sec 2):2004 / IEC 60947-5-2(2000)	Low voltage switchgear and controlgear : Part 5 Control circuit devices and switching elements Section 2 Proximity switches		
2	28	IS 14577:1998 / IEC 60363(1998)	Short-circuit current evaluation with special regard to rated short-circuit capacity of circuit-breakers in installations in ships	Jun 2003	
2	29	IS 14614:1998 / IEC 61543(1995)	Residual Current Operated Protective Devices (RCDs) for household and similar use - Electromagnetic compatibility.	Mar 2008	
3	80	IS 60715:1981 / IS/IEC 60715:1981	Dimensions of Low-voltage swtichgear and controlgear - Standardized mounting on rails of mechanical support of electrical devices in switchgear and controlgear installations(Superseding IS 11039)		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

31	IS 60898(Part 2):2003	Electrical Accessories - circuit breakers for over protection for household and similar installations Part 2 Circuit breakers for a.c. and d.c. operation (Superseding 8828)
32	IS 60947(Part 2):2003 / IEC 60947-2(2003)	Low voltage switchgear and controlgear: Part 2 Circuit breakers[Superseding IS 13947( Part 2 ):1993]
33	IS 60947(Part 4/Sec 2):1999	Low voltage switchgear and controlgear: Part 4 Contactors and motors starters Section 2 ac Semiconductor Motor Controllers and Starters
FINA	LISED DRAFTS UNDER PRINT	
1	DOC.ETD 7(5542) / IEC 60947-4-3(1999)	Low voltage switchgear and controlgear :Part 4 Contactors and motor starters Section 3 AC semiconductor controllers and contactors for non- motor loads
2	DOC.ETD 7(5581) / IEC 60947-1(2004)	Low voltage switchgear and controlgear: Part 1 General Rules (Superseding IS 13947(Part 1)
3	DOC.ETD 7(5582)	Electrical Accessories - circuit breakers for over protection for household and similar installations Part 1 Circuit breakers for a.c operation ( Supersedes 8828)
4	DOC.ETD 7(5583) / IEC 60947-3(2005)	Low voltage switchgear and controlgear: Part 3 Switches, disconnectors, switch-disconnectors and fuse combination units [Superseding IS 13947(Part 3)]
5	DOC.ETD 7(5595)	Resdual current operated circuit breakers household and similar uses: Part 2 circuit breakers with ntegral over current protection (RCBOs) (Supersedes IS 12640 and IS 12640(Part 2)
6	DOC.ETD 7(5637) / IEC 60947-4-1(2002)	Low-Voltage switchgear and controlgear: Part 4 Contactors and motor starters, Section 1 Electromechanical contactors and motor starters[superseding IS 13947(Part 4/Sec 1)
7	DOC.ETD 7(5638) / IEC 61008-1(2006)	Resdual current operated circuit- breakers wit hout integral overcurrent protection for household and similar uses (RCBOs): Part 1 General rules (First Revision)
8	DOC.ETD 7(5656)	Low-voltage switchgear and controlgear: - Part 5 Control circuit devices and switching elements, Section 1 Electromechanical control circuit devices (first revision of IS 13947 Part 5/Sec 1)
DRA	FT STANDARDS FINALIZED BUT	NOT YET UNDER PRINT
1	DOC.ETD 7(5760)	Specification for low voltage switchgear and controlgear assemblies: Part 1 Requirements for type-tested and partially type tested assemblies (second revision).(IEC 60439-1)

\* INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

2	DOC.ETD 7(5761)	Specification for low voltage switchgear
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and controlgear assemblies:

Part 2 Particular requirements for busbar

trunking systems (busways)-(second revision) (IEC

60439-2)

3 DOC.ETD 7(5762)

Low-voltage switchgear and controlgear assemblies: Part 3 Particular requirements for equipment where unskilled persons have access for their use (first

revision) (IEC 60439-3).

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

#### ETD 8 HIGH VOLTAGE SWITCHGEAR AND CONTROLGEAR

**SCOPE -** To prepare standards for switchgear and controlgear; such as circuit breakers, switches contactors, starters, disconnectors, busbars and any switchgear assemblies for voltages more than 1000 V ac

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STANI	DARDS PUBLISHED			
1	IS 3427:1997 / IEC 60298(1990)	A.C. Metal enclosed swtiichgear and controlgear for rated voltaes above 1kV upto and including 52 kV(first revsion)	Sep 2007	' 1
2	IS 5561:1970	Electric power connectors	Sep 2007	,
3	IS 7567:1993	Automatic circuit reclosers(second revision)	Sep 2007	,
4	IS 8084:1976	Interconnecting busbars for ac voltage above 1 kV upto and including 36 kV	Sep 2007	,
5	IS 9046:1978   IEC 60470(1974)	AC contactors of voltage above 1000 V upto and including 11000 V	Sep 2007	,
6	IS 9135:1979	Guide for testing of circuit breakers with respect to out-of-phase switching	Sep 2007	,
7	* IS 9920(Part 1):2002 / IEC 60265(1998)	IS 9920 : Part 1 : 2002 High Voltage Switches - Part 1 : Switches for Rated Voltages Above 1 kV and Less Than 52 Kv		
8	IS 9920(Part 2):2001 / IEC 60265-2(1988)	High voltage switches: Part 2 High voltage switches for rated voltages of 52 kV and above (First revision)	Mar 2006	i
9	* IS 9920(Part 3):1982   IEC 60129(1975)	Switches and switch isolators for voltages above 1000 V: Part 3 Design and construction	Sep 2007	,
10	* IS 9920(Part 4):1985   IEC 60129(1975)	Switches and switch isolators for voltages above 1000 V: Part 4 Type tests and routine tests	Sep 2007	,
11	* IS 9921(Part 1):1981   IEC 60129(1975)	Alternating current disconnectors (isolators) and earthing switches for voltages above 1000 V: Part 1 General and definitions	Sep 2007	,
12	* IS 9921(Part 2):1982   IEC 60129(1975)	Alternating current disconnectors (isolators) and earthing switches for voltages above 1000 V: Part 2 Rating	Sep 2007	,
13	* IS 9921(Part 3):1982   IEC 60129(1975)	Alternating current disconnectors (isolators and earthing switches for voltages above 1 000 V: Part 3 Design and construction	Sep 2007	
14	* IS 9921(Part 4):1985   IEC 60129(1975)	Alternating current disconnectors (isolators) and earthing switches for voltages above 1000 V: Part 4 Type tests and routine tests	Sep 2007	,

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

15	* IS 9921(Part 5):1985   IEC 60129(1975)	Alternating current disconnectors (isolators) and earthing switches for voltages above 1 000 V: Part 5 Informations to be given with tenders, inquiries and orders	Sep 2007
16	IS 10601:1983	Dimensions of terminals of high voltage switchgear and controlgear	Oct 2005
17	IS 12661(Part 1):1988	High voltae motor-starter: Part 1 Direct-on-line (full voltage) ac starters	Oct 2005
18	IS 12729:2004 / IEC 60694 (1996)	Common specification for high voltage switchgear and controlgear standards (first revsion)	Sep 2007
19	IS 13118:1991 / IEC 60056(1987)	General requirements for circuit breakers for voltages above 1 000 V (Superseding all Parts and Sections of IS 2516)	Sep 2007
20	IS 13516:1993 / IEC 60427(1989)	Methods of synthetic testing of high voltage alternating current circuit breakers	Apr 2003
21	IS 14657:1998 / IEC 61259(1994)	Gas-insulated metal-enclosed switchgear for rated voltage 72.5 kV and above - requirements for switching of bus-charging current by disconnectors.	Apr 2003
22	IS 14658:1999 / IEC 61633(1995)	High-voltage alternating current circuit-breakers- Guide for short-circuit and switching test procedures for metal-enclosed and dead tank circuit-breakers	Apr 2004
23	IS 14659:1999 / IEC 60466(1987)	A.C. insulation-enclosed switchgear and controlgear for rated voltage above 1 kV and upto and including 38 kV	Apr 2004
24	IS 14666:1999 / IEC 60420(1990)	High voltage alternating current switch fuse combinations	Apr 2004
25	IS 14674:1999 / IEC 61166(1993)	High voltage alternating current circuit breakers- Guide for seismic qualifications of high-voltage alternating current circuit-breakers	Apr 2004
26	IS 14786:2000 / IEC 61330(1995)	High voltage/ low voltage prefabricated substations	Mar 2005
27	IS 60517:1990 / IS/IEC 60517:1990	Gas insulated metal enclosed switchgear for rated voltages of 72.5 KV and above	Sep 2007
28	IS 62271(Part 105):2002 / IS/IEC62271-105:2002	High-voltage swithgear and controlgear: Part 105 Alternating current switch-fuse combinations	
FINA	LISED DRAFTS UNDER PRINT		
1	DOC.ETD 8(5704) / IEC 62271-203 (2003)	High-voltage swithgear and controlgear: Part 203 Gas-insulated metal-enlosed switchgear for rated voltages above 52 kV	
2	DOC.ETD 8(5708) / IEC 62271-100 (2001)	High-voltage swithgear and controlgear: Part 100 Alternating current disonnetors and earthing switches	
3	DOC.ETD 8(5709) / IEC 62271-102 (2002)	High-voltage swithgear and controlgear: Part 102 High-voltage alternating current circuit breakers	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

4	DOC.ETD 8(5768) / IS/IEC 60470	High Voltage Alternating Current Contactors and Contactor-Based Motor-Starters [Superseding IS 9046 and 12661 (Part 1)] (IEC
5	DOC.ETD 8(5769) / IS/IEC62271-200:2003	High-voltage switchgear and controlgear: Part 200 AC Metal-Enclosed Switchgear and Controlgear for Rated Voltages Above 1 kV and Up To and Including 52 kV (IEC 62271-200)
6	DOC.ETD 8(5784) / IS/IEC62271-201:2006	High-voltage switchgear and controlgear: Part 201 AC Insulation Enclosed Switchgear and Controlgear for Rated Voltages Above 1 kV and Above 52 kV (IEC 62271-201)

# DRAFT STANDARDS FINALIZED BUT NOT YET UNDER PRINT

1	DOC.ETD 8(5765) / IEC 62271-2 (2003)	High-voltage switchgear and controlgear: Part 2 Seismic qualification for rated voltages of 72.5 kV and above
2	DOC.ETD 8(5766) / IEC 60265-1 (1998)	High-voltage switches: Part 1 Switches for rated voltages above 1 kV and less than 52 kV [second revision of IS 9920 (Part 1)]

62271-207)

## DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

1	DOC.ETD 8(6048)	High-Voltage switchgear and controlgear: Part 207	rror
		Seismic qualification for gas-insulated switchgear	
		assemblies for rated voltages above 52 kV (IEC	

## DRAFT STANDARDS APPROVED FOR WIDE CIRCULATION

1 DOC.ETD 8(5642) Revision of IS 9046

#### **ETD 9 POWER CABLES**

SCOPE - To prepare standards for electric cables and their accessories, without limitations of voltage, current or form of construction but excluding cables for telecommunications and electronic equipment and such other cables as fall within the scope of other committees

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STANI	DARDS PUBLISHED			
1	IS 692:1994	Paper insulated lead-sheathed cables for rated voltages upto and including 33 kV (third revision)	Feb 2005	2
2	IS 694:1990   IEC 60227-1to5(1979)	PVC Insulated cables for working voltages upto and including 1100 V (Third revision)	Feb 2005	4
3	IS 1255:1983	Code of practice for installation and maintenance of power cables upto and including 33 kV rating (second revision)	Nov 2006	
4	IS 1554(Part 1):1988   IEC 605021983)	PVC insulated (heavy duty) electric cables: Part 1 For working voltages upto and including 1 100 V (third revision)	Feb 2005	3
5	IS 1554(Part 2):1988   IEC 60502(1983)	PVC insulated (heavy duty) electric cables:Part 2 For working voltages from 3.3kV upto and including 11 kV (Second revision)	Feb 2005	3
6	IS 2465:1984	Cables for motor vehicles (second revision)	Nov 2006	1
7	IS 2593:1984	Flexible cables for miners' cap lamps (first revision)	Nov 2006	1
8	IS 3961(Part 1):1967	Recommended current ratings for cables: Part 1 Paper insulated lead sheathed cables	Nov 2006	1
9	IS 3961(Part 2):1967	Recommended current ratings for cables: Part 2 PVC insulated and PVC sheathed heavy duty cables	Nov 2006	2
10	IS 3961(Part 3):1968	Recommended current ratings for cables: Part 3 Rubber insulated cables	Nov 2006	1
11	IS 3961(Part 5):1968	Recommended current ratings for cables: Part 5 PVC insulated light duty cables	Nov 2006	
12	IS 4289(Part 1):1984   IEC 60245-5	Flexible cables for lifts and other flexible connections: Part 1 Elastomer insulated cables (first revision)	Nov 2006	
13	IS 4289(Part 2):2000   IEC 60227-6(1985)	Flexible cables for lifts and other flexible connections:Part 2 PVC insulated cables	Feb 2005	ı
14	IS 5819:1970	Recommended short-circuit ratings of high voltage PVC cables	Nov 2006	
15	IS 5831:1984   IEC 60502(1983)	PVC insulation and sheath of electric cables (first revision)	Nov 2006	2
16	IS 5950:1984	Shot firing cables (for use other than in shafts) (first revision)	Nov 2006	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

17	IS 6380:1984   IEC 60502(1983)	Elastomeric insulation and sheath of electric cables (first revison)	Nov 2006	1
18	IS 6554:1983	Soldering ferrules of straight through joints (first revision)	Nov 2006	1
19	IS 7098(Part 1):1988   IEC 60502(1983)	Crosslinked polyethylene insulated PVC sheathed cables: Part 1 For working voltages upto and including 1 100 V (first revision)	Feb 2005	3
20	IS 7098(Part 2):1985   IEC 60502(1983)	Crosslinked polyethylene insulated PVC sheathed cables: Part 2 For working voltages from 3.3 kV upto and including 33 kV (first revision)	Feb 2005	2
21	IS 7098(Part 3):1993	Crosslinked polyethylene insulated thermoplastic sheathed cables: Part 3 For working voltages from 66 kV upto and including 220 kV	Dec 2003	2
22	IS 8130:1984   IEC 60228(1978)	Conductors for insulated electric cables and flexible cords (first revision)	Nov 2006	
23	IS 8308:1993	Compression type tubular in-line connectors for aluminium conductors of insulated cables (first revision)	Dec 2003	
24	IS 8309:1993	Compression type tubular terminal ends for aluminium conductors of insulated cables (first revision)	Dec 2003	1
25	IS 8337:1976	Performance requirements of compression joints of aluminium conductors in insulated cables	Feb 2005	1
26	IS 8394:1977	Soldering and welding type terminal ends for conductors of insulated cables	Aug 2007	2
27	IS 8438:1987	Moulds of cast resin based straight through joints for cables for voltages upto and including 1 100 V (first revision)	Aug 2007	
28	IS 9553:1987	Moulds suitable for cast resin based terminations for cables for voltages upto and including 1 100 V (first revision)	Aug 2007	
29	IS 9646:1992	Moulds suitable for cast resin-based joints for cables for voltages upto and including 1 100 V (first revision)	Dec 2003	
30	IS 9857:1990   IEC 60245-6	Welding cables (first revision)	Feb 2005	1
31	IS 9968(Part 1):1988	Elastomer insulated cables:Part 1 For working voltages upto and including 1 100 V (first revision) [superseeding IS 434(Parts 1 and 2)]	Feb 2005	2
32	IS 9968(Part 2):2002	Specification for elastomer-insulated cables:Part 2 For working voltages from 3.3 kV upto and including 33 kV (first revision) (superseding IS:434(Parts 1 and 2)	Aug 2007	2
33	IS 10418:1982	Drums for electric cables	Nov 2006	
34	IS 10435(Part 1):1983	Inverted type cable end boxes for outdoor termination suitable for paper insulated cables: Part 1 Belted type, multi-core cables upto and including 11 kV grade	Nov 2006	
* INDI	CATES STANDARDS UNDER REVISION	** INDICATES STANDARDS TO BE REVISED		

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

35	IS 10462(Part 1):1983   IEC 60502(1978)	Fictitious calculation method for determination of dimensions of protective coverings of cables:Part 1 Elastomeric and thermoplastic insulated cables	Nov 2006
36	IS 10462(Part 2):1991   IEC 60055-2	Fictitious calculation method for determination of dimensions of protective coverings of cables: Part 2 Paper insulated cables	Nov 2006
37	IS 10606:1983	Cast iron joint boxes for tee and branch trouser joints suitable for paper insulated cables for voltages upto and including 11 kV	Nov 2006
38	IS 10810(Part 0):1984	Methods of test for cables: Part 0 General	Nov 2006
39	IS 10810(Part 1):1984	Methods of test for cables: Part 1 Annealing test for wires used in conductors	Nov 2006
40	IS 10810(Part 2):1984	Methods of test for cables: Part 2 Tensile test for aluminium wires	Nov 2006
41	IS 10810(Part 3):1984	Methods of test for cables: Part 3 Wrapping test for aluminium wires	Nov 2006
42	IS 10810(Part 4):1984	Methods of test for cables: Part 4 Persulphate test of conductor	Nov 2006
43	IS 10810(Part 5):1984	Methods of test for cables: Part 5 Conductor resistance test	Nov 2006
44	IS 10810(Part 6):1984	Methods of test for cables: Part 6 Thickness of thermoplastic and elastomeric insulation and sheath	Nov 2006
45	IS 10810(Part 7):1984	Methods of test for cables: Part 7 Tensile strength and elongation at break of thermoplastic and elastomeric insulation and sheath	Nov 2006
46	IS 10810(Part 8):1984	Methods of test for cables: Part 8 Breaking strength and elongation at break for impregnated paper insulation	Nov 2006
47	IS 10810(Part 9):1984	Methods of test for cables: Part 9 Tear resistance for paper insulation	Nov 2006
48	IS 10810(Part 10):1984	Methods of test for cables:Part 10 Loss of mass test	Nov 2006
49	IS 10810(Part 11):1984	Methods of test for cables:Part 11 Thermal ageing in air	Nov 2006
50	IS 10810(Part 12):1984	Methods of test for cables:Part 12 Shrinkage test	Nov 2006
51	IS 10810(Part 13):1984	Methods of test for cables:Part 13 Ozone resistance test	Nov 2006
52	IS 10810(Part 14):1984	Methods of test for cables:Part 14 Heat shock test	Nov 2006
53	IS 10810(Part 15):1984	Methods of test for cables:Part 15 Hot deformation test	Nov 2006

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

54	IS 10810(Part 16):1986	Methods of test for cables:Part 16 Accelerated ageing test by oxygen pressure method	Nov 2006	
55	IS 10810(Part 17):1986	Methods of test for cables: Part 17 Tear resistance test for heavy duty sheath	Nov 2006	
56	IS 10810(Part 19):1984	Methods of test for cables:Part 19 Bleeding and blooming test	Nov 2006	
57	IS 10810(Part 20):1984	Methods of test for cables:Part 20 Cold bend test	Nov 2006	
58	IS 10810(Part 21):1984	Methods of test for cables:Part 21 Cold impact test	Nov 2006	
59	IS 10810(Part 22):1984	Methods of test for cables:Part 22 Vicat softening point	Nov 2006	
60	IS 10810(Part 23):1984	Methods of test for cables:Part 23 Melt-flow index	Nov 2006	
61	IS 10810(Part 24):1984	Methods of test for cables:Part 24 Water soluble impurities test of insulating paper	Nov 2006	
62	IS 10810(Part 25):1984	Methods of test for cables:Part 25 Conductivity of water extract test of insulating paper	Nov 2006	
63	IS 10810(Part 26):1984	Methods of test for cables:Part 26 pH value of water extract test of insulating paper	Nov 2006	
64	IS 10810(Part 27):1984	Methods of test for cables:Part 27 Ash content test of insulating paper	Nov 2006	
65	IS 10810(Part 28):1984	Methods of test for cables:Part 28 Water absorption test (Electrical)	Nov 2006	
66	IS 10810(Part 29):1984	Methods of test for cables:Part 29 Environmental stress cracking test	Nov 2006	
67	IS 10810(Part 30):1984	Methods of test for cables:Part 30 Hot set test	Nov 2006	
68	IS 10810(Part 31):1984	Methods of test for cables:Part 31 Oil resistance test	Nov 2006	
69	IS 10810(Part 32):1984	Methods of test for cables:Part 32 Carbon content test for polyethylene	Nov 2006	
70	IS 10810(Part 33):1984	Methods of test for cables:Part 33 Water absorption test (Gravimetric)	Nov 2006	2
71	IS 10810(Part 34):1984	Methods of test for cables:Part 34 Measurement of thickness of metallic sheath	Nov 2006	
72	IS 10810(Part 35):1984	Methods of test for cables:Part 35 Determination of tin in lead alloy for sheathing	Nov 2006	
73	IS 10810(Part 36):1984	Methods of test for cables:Part 36 Dimensions of armouring material	Nov 2006	
74	IS 10810(Part 37):1984	Methods of test for cables:Part 37 Tensile strength and elongation at break of armouring materials	Nov 2006	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

75         IS 10810(Part 38):1984         Methods of test for cables:Part 38 Torsion test on galvanized steel wires for armouring         Nov 2006 galvanized steel wires for armouring           76         IS 10810(Part 39):1984         Methods of test for cables:Part 39 Winding test on galvanized steel strips for armouring         Nov 2006           77         IS 10810(Part 40):1984         Methods of test for cables:Part 40 Uniformity of zinc coating on steel armour         Nov 2006           78         IS 10810(Part 41):1984         Methods of test for cables:Part 42 Resistivity test of catled armour         Nov 2006           79         IS 10810(Part 42):1984         Methods of test for cables:Part 42 Resistivity test of armour (wires/strips)         Nov 2006           80         IS 10810(Part 43):1984         Methods of test for cables:Part 43 Insulation resistance         Nov 2006           81         IS 10810(Part 44):1984         Methods of test for cables:Part 44 Spark test         Nov 2006           82         IS 10810(Part 46):1984         Methods of test for cables:Part 45 High voltage test         Nov 2006           83         IS 10810(Part 47):1984         Methods of test for cables:Part 46 Partial discharge test         Nov 2006           84         IS 10810(Part 47):1984         Methods of test for cables:Part 47 Impulse test         May 2005           85         IS 10810(Part 49):1984         Methods of test for cables:Part 48 Dielectr					
galvanized steel strips for armouring  Methods of test for cables: Part 40 Uniformity of zinc coating on steel armour  Nov 2006 coating on steel armour  Methods of test for cables: Part 42 Resistivity test of armour wires and strips and conductance test of armour (wires/strips)  Nov 2006 resistance  Nov 2006 armour (wires/strips)  Nov 2006 resistance  Nov 2006 r	75	IS 10810(Part 38):1984		Nov 2006	
coating on steel armour  Methods of test for cables:Part 41 Mass of zinc coating on steel armour  Methods of test for cables:Part 41 Mass of zinc coating on steel armour  Methods of test for cables:Part 42 Resistivity test of armour wires and strips and conductance test of armour (wires/strips)  Methods of test for cables:Part 42 Resistivity test of armour wires and strips and conductance test of armour (wires/strips)  Methods of test for cables:Part 43 Insulation Nov 2006  Methods of test for cables:Part 44 Spark test Nov 2006  Methods of test for cables:Part 45 High voltage test Nov 2006  Methods of test for cables:Part 46 Partial discharge Nov 2006  Methods of test for cables:Part 47 Impulse test May 2005  Is 10810(Part 46):1984 Methods of test for cables:Part 47 Impulse test May 2005  Is 10810(Part 49):1984 Methods of test for cables:Part 48 Dielectric power factor test  Methods of test for cables:Part 49 Heating cycle test Nov 2006  Is 10810(Part 50):1984 Methods of test for cables:Part 50 Bending test Nov 2006  Is 10810(Part 51):1984 Methods of test for cables:Part 51 Dripping test Nov 2006  Is 10810(Part 52):1984 Methods of test for cables:Part 52 Drainage test Nov 2006  Is 10810(Part 53):1984 Methods of test for cables:Part 54 Static flexibility test Nov 2006  Is 10810(Part 53):1984 Methods of test for cables:Part 55 Abrasion test Nov 2006  Is 10810(Part 55):1986 Methods of test for cables:Part 55 Abrasion test Nov 2006  Is 10810(Part 55):1986 Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  Methods of test for cables: Part 56 Accelerated Aug 2007  Aug 2007  Methods of test for cables: Part 56 Accelerated Aug 2007  Methods of test for cables: Part 57 Flexing test Aug 2007	76	IS 10810(Part 39):1984		Nov 2006	
Coating on steel armour  Methods of test for cables:Part 42 Resistivity test of armour wires and strips and conductance test of armour wires and strips and conductance test of armour wires and strips and conductance test of armour (wires/strips)  80 IS 10810(Part 43):1984 Methods of test for cables:Part 43 Insulation Nov 2006  81 IS 10810(Part 44):1984 Methods of test for cables:Part 44 Spark test Nov 2006  82 IS 10810(Part 45):1984 Methods of test for cables:Part 45 High voltage test Nov 2006  83 IS 10810(Part 46):1984 Methods of test for cables:Part 46 Partial discharge test Nov 2006  84 IS 10810(Part 47):1984 Methods of test for cables:Part 47 Impulse test May 2005  85 IS 10810(Part 48):1984 Methods of test for cables:Part 48 Dielectric power factor test  86 IS 10810(Part 49):1984 Methods of test for cables:Part 49 Heating cycle test Nov 2006  87 IS 10810(Part 50):1984 Methods of test for cables:Part 50 Bending test Nov 2006  88 IS 10810(Part 51):1984 Methods of test for cables:Part 51 Dripping test Nov 2006  89 IS 10810(Part 52):1984 Methods of test for cables:Part 52 Drainage test Nov 2006  90 IS 10810(Part 53):1984 Methods of test for cables:Part 53 Flammability test Nov 2006  91 IS 10810(Part 54):1984 Methods of test for cables:Part 53 Flammability test Nov 2006  92 IS 10810(Part 55):1986 Methods of test for cables:Part 55 Abrasion test Nov 2006  93 IS 10810(Part 56):1987 Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  94 IS 10810(Part 57):1987 Methods of test for cables: Part 57 Flexing test Aug 2007	77	IS 10810(Part 40):1984	·	Nov 2006	
armour wires and strips and conductance test of armour (wires/strips)  80 IS 10810(Part 43):1984 Methods of test for cables:Part 43 Insulation Pov 2006  81 IS 10810(Part 44):1984 Methods of test for cables:Part 44 Spark test Pov 2006  82 IS 10810(Part 45):1984 Methods of test for cables:Part 45 High voltage test Pov 2006  83 IS 10810(Part 46):1984 Methods of test for cables:Part 46 Partial discharge Pov 2006  84 IS 10810(Part 47):1984 Methods of test for cables:Part 47 Impulse test Pov 2006  85 IS 10810(Part 48):1984 Methods of test for cables:Part 48 Dielectric power factor test Pov 2006  86 IS 10810(Part 49):1984 Methods of test for cables:Part 48 Dielectric power factor test Pov 2006  87 IS 10810(Part 49):1984 Methods of test for cables:Part 49 Heating cycle test Pov 2006  88 IS 10810(Part 50):1984 Methods of test for cables:Part 50 Bending test Pov 2006  89 IS 10810(Part 51):1984 Methods of test for cables:Part 51 Dripping test Pov 2006  90 IS 10810(Part 53):1984 Methods of test for cables:Part 52 Drainage test Pov 2006  91 IS 10810(Part 53):1984 Methods of test for cables:Part 53 Flammability test Pov 2006  92 IS 10810(Part 54):1984 Methods of test for cables:Part 54 Static flexibility test Pov 2006  93 IS 10810(Part 55):1986 Methods of test for cables:Part 55 Abrasion test Pov 2006  94 IS 10810(Part 57):1987 Methods of test for cables: Part 56 Accelerated Aug 2007  ageing by air-pressure method  94 IS 10810(Part 57):1987 Methods of test for cables: Part 57 Flexing test Aug 2007	78	IS 10810(Part 41):1984		Nov 2006	
resistance  Methods of test for cables:Part 44 Spark test  Nov 2006  IS 10810(Part 44):1984  Methods of test for cables:Part 45 High voltage test  Nov 2006  Methods of test for cables:Part 46 Partial discharge  Nov 2006  Methods of test for cables:Part 46 Partial discharge  Nov 2006  Nov 2006  Radius IS 10810(Part 46):1984  Methods of test for cables:Part 47 Impulse test  May 2005  Methods of test for cables:Part 48 Dielectric power factor test  Nov 2006  IS 10810(Part 49):1984  Methods of test for cables:Part 49 Heating cycle test  Nov 2006  Nov 2006  Nov 2006  Nov 2006  Methods of test for cables:Part 50 Bending test  Nov 2006  Methods of test for cables:Part 51 Dripping test  Nov 2006  Methods of test for cables:Part 52 Drainage test  Nov 2006  Methods of test for cables:Part 53 Flammability test  Nov 2006  Methods of test for cables:Part 54 Static flexibility test  Nov 2006  IS 10810(Part 53):1984  Methods of test for cables:Part 55 Abrasion test  Nov 2006  Methods of test for cables:Part 56 Accelerated  Aug 2007  Methods of test for cables: Part 56 Accelerated  Aug 2007  Methods of test for cables: Part 57 Flexing test  Aug 2007	79	IS 10810(Part 42):1984	armour wires and strips and conductance test of	Nov 2006	
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Methods of test for cables:Part 48 Dielectric power factor test  Methods of test for cables:Part 49 Heating cycle test  Nov 2006  IS 10810(Part 49):1984 Methods of test for cables:Part 50 Bending test  Nov 2006  IS 10810(Part 50):1984 Methods of test for cables:Part 51 Dripping test  Nov 2006  IS 10810(Part 51):1984 Methods of test for cables:Part 51 Dripping test  Nov 2006  IS 10810(Part 52):1984 Methods of test for cables:Part 52 Drainage test  Nov 2006  IS 10810(Part 53):1984 Methods of test for cables:Part 53 Flammability test  Nov 2006  IS 10810(Part 54):1984 Methods of test for cables:Part 54 Static flexibility test  Nov 2006  IS 10810(Part 55):1986 Methods of test for cables:Part 55 Abrasion test  Nov 2006  IS 10810(Part 56):1987 Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  Nov 2007	83	IS 10810(Part 46):1984	<u> </u>	Nov 2006	
factor test  Methods of test for cables:Part 49 Heating cycle test Nov 2006  IS 10810(Part 50):1984 Methods of test for cables:Part 50 Bending test Nov 2006  IS 10810(Part 51):1984 Methods of test for cables:Part 51 Dripping test Nov 2006  IS 10810(Part 52):1984 Methods of test for cables:Part 52 Drainage test Nov 2006  IS 10810(Part 53):1984 Methods of test for cables:Part 53 Flammability test Nov 2006  IS 10810(Part 54):1984 Methods of test for cables:Part 54 Static flexibility test Nov 2006  IS 10810(Part 55):1986 Methods of test for cables:Part 55 Abrasion test Nov 2006  IS 10810(Part 56):1987 Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  IS 10810(Part 57):1987 Methods of test for cables: Part 57 Flexing test Aug 2007	84	IS 10810(Part 47):1984	Methods of test for cables:Part 47 Impulse test	May 2005	
Methods of test for cables:Part 50 Bending test  Nov 2006  IS 10810(Part 51):1984  Methods of test for cables:Part 51 Dripping test  Nov 2006  IS 10810(Part 52):1984  Methods of test for cables:Part 52 Drainage test  Nov 2006  IS 10810(Part 53):1984  Methods of test for cables:Part 53 Flammability test  Nov 2006  IS 10810(Part 54):1984  Methods of test for cables:Part 54 Static flexibility test  Nov 2006  IS 10810(Part 55):1986  Methods of test for cables:Part 55 Abrasion test  Nov 2006  IS 10810(Part 56):1987  Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  IS 10810(Part 57):1987  Methods of test for cables: Part 57 Flexing test  Aug 2007	85	IS 10810(Part 48):1984	•	Nov 2006	
IS 10810(Part 51):1984 Methods of test for cables:Part 51 Dripping test Nov 2006  IS 10810(Part 52):1984 Methods of test for cables:Part 52 Drainage test Nov 2006  IS 10810(Part 53):1984 Methods of test for cables:Part 53 Flammability test Nov 2006  IS 10810(Part 54):1984 Methods of test for cables:Part 54 Static flexibility test Nov 2006  IS 10810(Part 55):1986 Methods of test for cables:Part 55 Abrasion test Nov 2006  IS 10810(Part 56):1987 Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  IS 10810(Part 57):1987 Methods of test for cables: Part 57 Flexing test Aug 2007	86	IS 10810(Part 49):1984	Methods of test for cables:Part 49 Heating cycle test	Nov 2006	
Methods of test for cables:Part 52 Drainage test  Nov 2006  IS 10810(Part 53):1984  Methods of test for cables:Part 53 Flammability test  Nov 2006  IS 10810(Part 54):1984  Methods of test for cables:Part 54 Static flexibility test  Nov 2006  IS 10810(Part 54):1986  Methods of test for cables:Part 55 Abrasion test  Nov 2006  IS 10810(Part 56):1987  Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  IS 10810(Part 57):1987  Methods of test for cables: Part 57 Flexing test  Aug 2007	87	IS 10810(Part 50):1984	Methods of test for cables:Part 50 Bending test	Nov 2006	
90 IS 10810(Part 53):1984 Methods of test for cables:Part 53 Flammability test Nov 2006 91 IS 10810(Part 54):1984 Methods of test for cables:Part 54 Static flexibility test Nov 2006 92 IS 10810(Part 55):1986 Methods of test for cables:Part 55 Abrasion test Nov 2006 93 IS 10810(Part 56):1987 Methods of test for cables: Part 56 Accelerated ageing by air-pressure method 94 IS 10810(Part 57):1987 Methods of test for cables: Part 57 Flexing test Aug 2007	88	IS 10810(Part 51):1984	Methods of test for cables:Part 51 Dripping test	Nov 2006	
91 IS 10810(Part 54):1984 Methods of test for cables:Part 54 Static flexibility test Nov 2006  92 IS 10810(Part 55):1986 Methods of test for cables:Part 55 Abrasion test Nov 2006  93 IS 10810(Part 56):1987 Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  94 IS 10810(Part 57):1987 Methods of test for cables: Part 57 Flexing test Aug 2007	89	IS 10810(Part 52):1984	Methods of test for cables:Part 52 Drainage test	Nov 2006	
92 IS 10810(Part 55):1986 Methods of test for cables:Part 55 Abrasion test Nov 2006  93 IS 10810(Part 56):1987 Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  94 IS 10810(Part 57):1987 Methods of test for cables: Part 57 Flexing test Aug 2007	90	IS 10810(Part 53):1984	Methods of test for cables:Part 53 Flammability test	Nov 2006	
93 IS 10810(Part 56):1987 Methods of test for cables: Part 56 Accelerated ageing by air-pressure method  94 IS 10810(Part 57):1987 Methods of test for cables: Part 57 Flexing test Aug 2007	91	IS 10810(Part 54):1984	Methods of test for cables:Part 54 Static flexibility test	Nov 2006	
ageing by air-pressure method  94 IS 10810(Part 57):1987 Methods of test for cables: Part 57 Flexing test Aug 2007	92	IS 10810(Part 55):1986	Methods of test for cables:Part 55 Abrasion test	Nov 2006	
	93	IS 10810(Part 56):1987		Aug 2007	
95 IS 10810(Part 58):1998 Methods of test for cables: Part 58 Oxygen index test Dec 2003	94	IS 10810(Part 57):1987	Methods of test for cables: Part 57 Flexing test	Aug 2007	
	95	IS 10810(Part 58):1998	Methods of test for cables: Part 58 Oxygen index test	Dec 2003	

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<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

	96	IS 10810(Part 59):1988	Methods of test for cables: Part 59 Determination of the amount of halogen acid gas evolved during combustion of polymeric materials taken from cables	May 2005					
	97	IS 10810(Part 60):1988	Methods of test for cables: Part 60 Thermal stability of PVC insulation and sheath	May 2005					
	98	IS 10810(Part 61):1988	Methods of test for cables: Part 61 Flame retardant test	May 2005	1				
	99	IS 10810(Part 62):1993	Methods of test for cables: Part 62 Fire resistance test for bunched cables	Dec 2003					
	100	IS 10810(Part 63):1993	Methods of test for cables: Part 63 Smoke density of electric cables under fire conditions	Dec 2003					
	101	IS 10810(Part 64):2003	Methods of test for cables :Part 64 Measurement of temperature index	Mar 2008					
	102	IS 10877:1984	Moulds suitable for cast resin based indoor terminations for cables for voltages 3.3 kV and above and upto and including 11 kV	Nov 2006					
	103	IS 11979:1987	Moulds for cast resin based straight through joints for cables for working voltages from 3.3 kV upto and including 11 kV	Aug 2007					
	104	IS 12909:1990	Power cables dimensions for moulds for cast resin based outdoor terminations for cables for voltages above 1 100 volts and upto and including 11 000 volts	Feb 2005					
	105	IS 12943:1990	Brass glands for PVC cables	Feb 2005					
	106	IS 13573:1992   iec 60502:1989	Joints and terminations for polymeric cables for working voltages from 6.6 kV up to and including 33 kV - performance requirements and type tests	Dec 2003	2				
	107	IS 13705:1993	Performance requirements and type test for transition joint of cables for working voltages from 11 kV up to and including 33 kV	Dec 2003					
	108	IS 14255:1995	Aerial bunched cables for working voltages upto and including 1 100 volts- specification	Feb 2005					
	109	IS 14494:1998	Elastomer insultated flexible cables for use in mines (superseeding IS:691 and IS:1026)	Dec 2003					
DRAFT STANDARDS ISSUED IN WIDE CIRCULATION									
	1	DOC.ETD 9(5795)	Specification for crosslinked polyethylene insulated thermoplastic sheathed cables: Part 2 For working voltages from 3.3 kV upto and including 33 kV (second revision)						
	2	DOC.ETD 9(5866)	Polyvinyl chloride insulated sheathed and unsheathed cables with rigid and flexible conductor for rated voltages upto and including 450/750 V: Part 1 General requirements (fourth revision of IS 694)						
	3	DOC.ETD 9(5882)	Elastomer insultated flexible cables for use in mines (first revision of IS 14494)						

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

4	DOC.ETD 9(5971)	Specification for elastomer insulated cables with limited circuit integrity when affected by fire.
5	DOC.ETD 9(5976)	Specification for cable accessories for exturded power cable with rated voltage up to and including 3.3 kV (E) Part 1 Test requirements and test methods (First Revision of IS 13573)
6	DOC.ETD 9(5977)	Specification for cable accessories for exturded power cable with rated voltage up to and including 3.3 Kv (E) Part 2 Test requirements (First Revision of IS 13573)
7	DOC.ETD 9(5978)	Specification for cable accessories for exturded power cable with rated voltage up to and including 3.3 kV (E) Part 3 Test methods (First Revision of IS 13573)
8	DOC.ETD 9(6037)	Specification for recommended short circuit ratings of electric cables with rated voltage from 1.1 kV to 220 kV

# **DRAFT STANDARDS FORMULATED**

Halogen Free Flame Retardant Cables for Working Voltages up to and including 450/750 Volts -1 DOC.ETD 9(5865)

Specification

## ETD 10 PRIMARY CELLS AND BATTERIES

**SCOPE -** To prepare standards for cells and batteries particularly those relating to the specification, checking of their dimensions and characteristics and to provide guidance on matters of safety

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STANI	DARDS PUBLISHED			
1	IS 586:1976	Leclanche type dry batteries for telecommunications, signalling and general purposes (third revision)	Dec 2005	3
2	IS 2083:1991	Flashlights (second revision)	Dec 2005	2
3	IS 2652:1976	Schedule of terminals for leclanche type primary batteries (first revision)	Dec 2005	1
4	IS 4268:1992	Air depolarized primary wet cells (second revision)	Feb 2003	ı
5	IS 6303:1984   IEC 86-1(1972)	General requirements and methods of tests for dry cells and batteries	Dec 2005	6
6	IS 6648:1972	Carbon electrodes for dry cells and batteries	Dec 2005	ı
7	IS 8144:1997   iEC 86-2(1972)	Multipurpose dry batteries (First revision)	Feb 2003	ı
8	IS 9128:1999	Heavy duty dry batteries (first revision)	Mar 2004	. 2
9	IS 11675:1986   IEC 86-2(1982)	Button cells - Silver oxide	Mar 2004	
10	IS 15063:2001   IEC 86-2(1994)	Alkaline manganese dioxide cells	Aug 2006	i
DRAF	T STANDARDS ISSUED IN WIDE	CIRCULATION		
1	DOC.ETD 10(5822)	Primary Batteries - General (first revision of IS 6303)		
DRAF	T STANDARDS FORMULATED			
1	DOC.ETD 10(5755)	Primary Batteries Part 1: General (first revision of IS 6303)		
2	DOC.ETD 10(5756)	Primary Batteries Part 2: Physical and electrical specification (first revision of IS 6303)		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>/</sup> INDICATES DUAL NUMBER STANDARDS

## ETD 11 SECONDARY CELLS AND BATTERIES

**SCOPE -** To prepare standards for all rechargeable cells and batteries (starter batteries, stationary batteries, traction batteries etc.)

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STANI	DARDS PUBLISHED			
1	IS 1145:1980	Lead-acid storage batteries for motor cycles, autorickshaws and similar vehicles (second revision)	Dec 2003	1
2	IS 1146:1981	Rubber and plastic containers for lead-acid storage batteries (second revision)	Dec 2003	3
3	IS 1651:1991	Stationary cells and batteries, lead-acid type (with tubular positive plates) (third revision) (superseding IS:541)	Sep 2007	1
4	IS 1652:1991	Stationary cells and batteries, lead-acid type with plante positive plates (third revision) (superseding IS:541)	Sep 2007	ı
5	IS 2512:1978	Miners cap lamp batteries (lead-acid type) (first revision)	Dec 2003	3
6	IS 5154:1980   IEC 254(1967)	Lead-acid traction batteries (first revision)	Dec 2003	3 2
7	IS 6071:1986	Synthetic separators for lead-acid batteries (first revision)	Sep 2007	2
8	IS 6304:1992	Stationary batteries lead-acid type with pasted positive plates (second revision)	Sep 2007	,
9	IS 6848:1979   IEC 77(1968)	Lead-acid batteries for train lighting and airconditioning services (first revision)	Dec 2003	3 2
10	IS 7372:1995   IEC 95-1(1988)	Lead-acid storage batteries for motor vehicles (first revision)	Sep 2007	3
11	IS 7624:1990   IEC 95-1(1980)	Lead-acid starter batteries for diesel locomotives and rail cars (first revision)	Dec 2003	<b>,</b>
12	IS 7660:1988	Lead-acid batteries for electric locomotives and electrical multiple units (first revision)	Dec 2003	<b>,</b>
13	IS 8320:2000	General requirements and methods of test for lead- acid storage batteries (second revision)	Jul 2005	
14	IS 9814:1981	Lead-acid storage batteries for marine use	Dec 2003	i
15	IS 10893:1984	Sealed nickel-cadmium button type rechargeable single cell	Dec 2003	<b>;</b>
16	IS 10918:1984   IEC 623(1978)	Vented type nickel cadmium batteries	Dec 2003	3 1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

17	IS 12013:1987	Lead-acid batteries for 110 volts train lighting system with monobloc containers	Sep 2007	
18	IS 13300:1992	Nickel -cadmium aircraft batteries (aerobatic and non-aerobatic)	Sep 2007	
19	IS 13315:1992   IEC 623(1983)	Nickel -cadmium batteries for electric locomotives	Sep 2007	
20	IS 13369:1992	Stationary lead - acid batteries (with tubular positive plates) in monobloc containers	Sep 2007	1
21	IS 13514:1992	Lead-acid batteries for electric road vehicles	Sep 2007	1
22	IS 13568:1992	Lead -acid light weight storage batteries for motor cycles and similar vehicles fitted with ac circuitry	Sep 2007	1
23	IS 13595:1992	Silver-oxide-zinc batteries for aircraft	Sep 2007	
24	IS 14217:1994	Miner's cap lamp batteries (alkaline type)	Dec 2003	
25	IS 14218:1994   IEC 285(1983)	Sealed cylindrical type rechargeable nickel cadmium cells	Dec 2003	
26	IS 14257:1995   IEC 95-1(1988)	Lead-acid storage batteries for motor vehicles with light weight and high cranking performance	Dec 2003	
27	IS 14782:2000	Code of practice for maintenance and testing of large lead- acid batteries for generating systems and substations	May 2005	
28	IS 15549:2005	Stationary valve regulated lead acid batteries - Specification		
FINA	LISED DRAFTS UNDER PRINT			
1	DOC.ETD 11(5791)	Secondary Cells and Batteries Containing Alkaline or other Non-Acid Electrolytes – Nickel-Cadmium Prismatic Secondary Single Cells with Partial Gas		

Recombination (IEC 62259:2003)

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

### ETD 12 MEASURING EQUIPEMENT FOR BASIC ELECTRICAL QUANTITIES

SCOPE - To prepare standards for direct and indirect acting analogue and digital indicating and recording instruments and their accessories, also transducers having electrical inputs and outputs for measuring electrical quantities by any method on direct current and alternating current at distribution system frequencies and their harmonics

Title

To prepare standards for primary reference apparatus, operating on direct current and alternating current at distribution frequencies and their harmonics for the purpose of measurement, traceability and intercomparison

Reaffirm

51. NO.	15 Number/ DOC Number	TITIE	Reamirm	
			Date	Am
STANE	DARDS PUBLISHED			
1	IS 1248(Part 1):2003   IEC 600 51-1(1997)	Direct acting indicating analogue electrical measuring instruments and their accessories: Part 1 General requirements (fourth revision)		
2	IS 1248(Part 2):2003   IEC 600 51-2(1984)	Direct acting indicating analogue electrical measuring instruments and their accessories: Part 2 Ammeters and voltmeters (third revision)		1
3	IS 1248(Part 3):2003   IEC 600 51-3(1984)	Direct acting indicating analogue electrical measuring instruments and their accessories: Part 3 Wattmeters and varmeters (third revision)		1
4	IS 1248(Part 4):2003   IEC 600 51-4(1984)	Direct acting indicating analogue electrical measuring instruments and their accessories: Part 4 Frequency meters (third revision)		1
5	IS 1248(Part 5):2003   IEC 600 51-5(1984)	Direct acting indicating analogue electrical measuring instruments and their accessories: Part 5 Phase meters, power factor meters and synchroscope (third revision)		1
6	IS 1248(Part 6):2003   IEC 600 51-6(1984)	Direct acting indicating analogue electrical measuring instruments and their accessories: Part 6 Ohmmeters (impedance meters) and conductance meters (third revision)		
7	IS 1248(Part 7):2003   IEC 600 51-7(1984)	Direct acting indicating analogue electrical measuring instruments and their accessories: Part 7 Multifunction instruments (third revision)		1
8	IS 1248(Part 8):2003   IEC 600 51-8(1984)	Direct acting indicating analogue electrical measuring instruments and their accessories: Part 8 Accessories (third revision)		1
9	IS 1248(Part 9):2003   IEC 600 51-9(1988)	Direct acting indicating analogue electrical measuring instruments and their accessories: Part 9 Test methods (third revision)		
10	IS 1765:1980   IEC 60523:1975	Direct current potentiometers (second revision)	Aug 2002	
11	IS 2419:1979   IEC 60473(74)	Dimensions for panel mounted indicating and recording electrical instruments (first revision)	Aug 2007	1
12	IS 2442:1963	dc moving coil galvanometers	Jan 2005	1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

SI. No. IS Number/ DOC Number

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

13	IS 2992:1987	Insulation resistance testers, hand operated (magneto generator type) (second revision)	Jan 2005	
14	IS 3602:1966	Recommendations for the design of scales and indexes for indicating instrumentsfor scales of 1 to 2 percent resolution	Aug 2007	
15	IS 3635:1966	Methods of test for resistance of metallic electrical resistance material	Jan 2005	
16	IS 3636:1966	Method of test for temperature co-efficient of precision resistor wires	Jan 2005	
17	IS 6236:1971   IEC 60258(1968)	Direct recording electrical measuring instruments	Jan 2005	
18	IS 7889:1975	Vibration galvanometers	Jan 2005	
19	IS 7890:1975	Ballistic galvanometers	Jan 2005	
20	IS 7914:1975   IEC 60428(1973)	Standard cells	Jan 2005	3
21	IS 8143:1976	Plugs and keys for resistance boxes	Jan 2005	
22	IS 8160:1976	Tangent galvanometers	Jan 2005	1
23	IS 8197:1976	Terminal markings for electrical measuring instruments and their accessories	Jan 2005	
24	IS 8525:1977	Recommendations for design of linear scales and indexes for indicating instruments to be read to 0.33-1.25 percent resolution.	Aug 2007	
25	IS 8945:1987   IEC 60079	Electrical measuring instruments for explosive gas atmospheres (first revision)	Jan 2005	
26	IS 9051:1979	Specification for Rheostats	Jan 2005	1
27	IS 9223:1989	Portable earth resistance meters (first revision)	Jan 2005	
28	IS 9249(Part 1):1979   IEC 60414(1973)	Safety requirements for indicating and recording electrical measuring instruments and their accessories: Part 1 Common safety requirements for instruments	Aug 2007	
29	IS 9249(Part 2):1982   IEC 60414((1973)	Safety requirements for indicating and recording electrical measuring instruments and their accessories: Part 2 Safety requirements for instruments using a mains supply	Aug 2007	
30	IS 10659:1983   IEC 60564(1977)	Specification for Direct current bridges for measuring resistance (superseding IS:1565)	Aug 2007	
31	IS 11067:1984	Direct current standard resistors	Aug 2007	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

32	IS 11212:1985	Direct current resistive volt ratio boxes	Aug 2007
33	IS 11287:1985	Bridge insulation testers (Magneto generator type)	Aug 2007
34	IS 11994:1986	Portable insulation resistance tester (mains operated)	Aug 2007
35	IS 12312:1987   IEC 60618	Inductive voltage dividers	Jan 2005
36	IS 14570:1998 / IEC 60688:1992	Electrical measuring transducers for converting AC electrical quantities to to analogue or digital signals	Aug 2007
37	IS 14571:1998 / IEC 61028(1991)	Electrical measuring Instruments X-Y recorders.	Jul 2003

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

### ETD 13 EQUIPMENT FOR ELECTRICAL ENERGY MEASUREMENT AND LOAD CONTROL

SCOPE - To prepare standards for electrical energy measuring and electrical load control equipment (such as watthour meters, varhour meters, maximum demand indicators, telemetering for consumption and demand, equipment for remote meter reading, time-switches, equipment for the control of loads and tariffs and consumer services) including the electronic forms of these devices and their accessories

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STANI	DARDS PUBLISHED			
1	IS 1766:1998   IEC 61038:1992	Time swtiches for metering and load control (second revision)	Oct 2003	
2	IS 7700:1975	Quadrature phase-shifting voltage transformers	Sep 2005	ı
3	IS 8530:1977   IEC 60211(1966)	Maximum demand indicators (class 1)	Sep 2005	1
4	IS 9792(Part 1):2005	Guide for testing, calibration and maintenance of ac electricity meters: Part 1Single phase whole current watthour meters, Class 2 (first revision)	Jan 2005	ı
5	IS 11426:2006	Alternating current precision electricity meters for testing purposes: Part 1 Requirements for electromechanical meters (first revision)		
6	IS 11448:2000	Application guide for ac electricity meters(first revision)		
7	IS 12346:1999   IEC 60736(1982)	Testing equipment for ac electrical energy meters (first revision)	Jul 2004	
8	IS 13010:2002   IEC 60521(1988)	AC watt-hour meters, Class 0.5, 1 and 2(first revision)		1
9	IS 13779:1999   IEC 61036(1996)	AC static watthour meters (Class 1 and 2) (first revision)	Oct 2004	3
10	IS 14372:1996	Volt-ampere hour meters for full power factor range [superseding IS:722(Part 7/Sections 1, 2 and 3)-1987]	Sep 2005	ı
11	IS 14415:1997   IEC 60211(1996)	Volt-Amphere hour meters for restricted power factor range - specification [superseding IS:722 (Part 5):1980	Dec 2002	
12	IS 14451(Part 1):1998   IEC 60338(1970)	Telemetering of consumption and demand: Part 1 Impulse transmitting and receiving devices	Jan 2003	i
13	IS 14451(Part 2):1999   IEC 60338(1970)	Telemetering for Consumption and Demands Part 2 Direct digital transfer of meter values	Jul 2004	
14	IS 14697:1999   IEC 60687(1992)	ac static transformer operated watthour and var-hour meters, class 0.2S and .5S-Specification	Oct 2004	3
15	IS 15707:2006	Testing, evaluation, installation and maintenance of ac electricity meters - Code of Practice		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

# DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

1	DOC.ETD 13(5998) / IEC 62056-42:2002	Electricity metering Data exchange for meter reading tariff and load control -Part 42 Physical layer services and procedures for connection-oriented asynchronous data exchange.	2001	rror
2	DOC.ETD 13(5999) / IEC 62056-46:2002	Electricity metering Data exchange for meter reading tariff and load control -Part 46 Data link layer using HDLC protocol	2001	rror
3	DOC.ETD 13(6000) / IEC 62056-53:2002	Electricity metering Data exchange for meter reading tariff and load control -Part 53 COSEM application layer'	2001	rror
4	DOC.ETD 13(6001) / IEC 62056-61;2002	Electricity metering Data exchange for meter reading tariff and load control -Part 61 Object identification system (OBIS)"	2001	rror
5	DOC.ETD 13(5997) / IEC 62056-21:2002	Electricity Metering Data exchangefor meter reading, tariff and load control- Part 21 direct local data exchange	2001	
6	DOC.ETD 13(6002) / IEC 62056-62:2002	Electricity metering Data exchange for meter reading tariff and load control -Part 62 Interface Classes'	2001	
7	DOC.ETD 13(5476)	Specification for alternating current precision meters for testing purposes: Part 2 Requirements for static meters		
8	DOC.ETD 13(5878)	Alternating current direct connected static pre- payment meters for active energy (Class 1 & 2) - Specification		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

## ETD 14 ELECTRICAL WIRING ACCESSORIES

SI. No. IS Number/ DOC Number

**SCOPE -** To prepare standards for electrical wiring accessories; such as lamp holders, switches, plugs and socket- outlets, connecting devices and conduits and their accessories for electrical installations

Title

Reaffirm

51. NO.	IS Number/ DOC Number	litie	Reattirm	
			Date	Am
STANE	DARDS PUBLISHED			
1	IS 371:1999	Ceiling roses (third revision)	Mar 2005	5 4
2	IS 1258:2005   IEC 61184(1997)	Bayonet lamp holders (fourth revision)		1
3	IS 1293:2005   IEC 60884-1 (2002)	Plugs and socket outlets for household and similar purposes: Part 1 Particular requirements for plugs and socket-outlets of rated voltage upto and including 250 volts and rated current upto and including 16 amperes(third revision)		3
4	IS 2412:1975	Link clips for electrical wiring (first revision)	May 2007	2
5	* IS 2667:1988	Fittings for rigid steel conduits for electrical wiring (first revision)	Nov 2005	
6	IS 3010(Part 1):1965	Appliance-connectors and appliance-inlets (non-reversible three-pin type): Part 1 Appliance connectors	Apr 2004	6
7	IS 3010(Part 2):1965	Appliance-connectors and appliance-inlets(non-reversible three-pin type): Part 2 Appliance inlets	Apr 2004	5
8	IS 3323:1980   IEC 60400(1972)	Bi-pin lampholders for tubular fluorescent lamps (first revision)	Oct 2002	1
9	IS 3324:1982   IEC 400(1972)	Holders for starters for tubular fluorescent lamps (first revision)	Jun 2003	,
10	* IS 3419:1989	Fittings for rigid non-metallic conduits (second revision)	May 2007	,
11	* IS 3480:1966	Flexible steel conduits for electrical wiring	May 2007	1
12	IS 3837:1976	Accessories for rigid steel conduits for electrical wiring (first revision)	May 2007	1
13	* IS 3854:1997   IEC 60669-1(1998)	Switches for domestic and similar purposes (second revision)	Jul 2002	2 5
14	IS 4160:2005   IEC 60884-2-6 (1997)	Interlocking switch socket outlets - Speification (first revision)		
15	* IS 4615:1968	Switch- socket outlets (non-interlocking type)	Nov 2005	7

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

16	IS 4649:1968	Adaptors for flexible steel conduits	May 2007	
17	IS 6896:1973	Connectors (two-way) for railway coach wiring	May 2007	1
18	IS 6965:1979	Switches for use in railway coaching stock (first revision)	May 2007	2
19	IS 8200:1976	Toggle switches used in traction application	Jul 2003	
20	IS 9537(Part 1):1980   IEC 60614-1(1978)	Conduits for electrical installations: Part 1 General requirements	Nov 2005	1
21	IS 9537(Part 2):1981	Conduits for electrical installations:Part 2 Rigid steel conduits (superseding IS:1653)	May 2007	3
22	IS 9537(Part 3):1983   IEC 60614-2-2(1980)	Conduits for electrical installations: Part 3 Rigid plain conduits of insulating materials (superseding IS:2509)	May 2007	1
23	IS 9537(Part 4):1983	Conduits for electrical installations: Part 4 Pliable self-recovering conduits of insulating materials	May 2007	
24	IS 9537(Part 5):2000   IEC 60614-2-3(1990)	Conduits for a electrical installations: Part 5 Pliable conduits of insulating material (Superseding IS 6946)	Jun 2005	
25	IS 9537(Part 6):2000   IEC 60614-2-6(1992)	Conduit for electrical installations: Part 6 Pliable conduits of metal or composit materials	Mar 2005	
26	IS 9537(Part 8):2003	Conduits for electrical instalations Part 8 Rigid non threadable conduits of aluminium alloy	Apr 2003	
27	IS 10276(Part 1):1982   IEC 60238(1975)	Edison screw lampholders : Part 1 Requirements and tests	Jun 2003	
28	IS 10276(Part 2):1982   IEC 60238(1975)	Edison screw lampholders: Part 2 Standard data sheets for lamp holders and gauges	Jun 2003	
29	IS 14763:2000   IEC 60423(1993)	Conduit for electrical purposes, outside diameters of conduits for electrical installations and threads for conduits and fittings	Mar 2005	
30	IS 14768(Part 1):2000   IEC 61035-1(1990)	Conduit fittings for electrical installations :Part 1 General requirements	Nov 2003	
31	IS 14768(Part 2):2003   IEC 61035-2-1(1993)	Conduit fittings for electrical installations: Part 2 Metal conduit fittings (superseding IS 2667)	Feb 2008	
32	IS 14772:2000   IEC 60670-1(1989)	Enclosures for accessories for household and similar fixed electrical installations (Superseding IS 5133(Part 1 and 2)	May 2005	
33	IS 14927(Part 1):2001   IEC 61084-1(1991)	Cable trunking and ducting systems for electrical installations: Part 1 General requirements	Aug 2007	
34	IS 14927(Part 2):2001   IEC 61084-2-1(1996)	Cable trunking and ducting systems for electrical installations: Part 2 Cable trunking and ducting systems instended for mounting on walls or ceilings	May 2007	
35	IS 14930(Part 1):2001   IEC 61386-1(1996)	Conduit systems for electrical installations : Part 1 General requirements	May 2002	1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

36	IS 14930(Part 2):2001   IEC 61242-1(1995)	Conduit systems for electrical installations: Part 2 Particular requirements for conduit system buried underground	May 2002	1
37	IS 15368:2003	Cable reels for household and similar purposes	Jul 2003	
38	IS 60309(Part 1):2002 / IEC 60309-1(1999)	Plugs, socket-outlets and couplers for industrial purposes: Part 1 General requirements (first revision)		
39	IS 60309(Part 2):2002 / IEC 60309-2(1999)	Plugs, socket-outlets and couplers for industrial purposes: Part 2 Dimensional interchangeability requirements for pin and contact-tube accessories (first revision)		
40	IS 60320(Part 1):2001 / IEC 60320-1(2001)	Appliance couplers for household and similar general purposes Part 1 General requirements		
41	IS 60320(Part 2/Sec 2):1998 / IEC 60320-2-2(1998)	Appliance couplers for household and similar general purposes part 2-2 Interconnection couplers for household and similar equipment		
42	IS 60320(Part 2/Sec 3):2007   IEC 60320-2-3(1998)	Appliance couplers for household and similar general purposes- part 2-3 Appliance coupler with a degree of protection higher IPXO		
FINALI	SED DRAFTS UNDER PRINT			
1	DOC.ETD 14(5814) IEC 61058-1	Switches for Appliances part 1 General Requirement		
2	DOC.ETD 14(5283)	Switch- socket outlets (Non-interlocking) ( revision of IS 4615)		
DRAFT	STANDARDS ISSUED IN WIDE	CIRCULATION		
1	DOC.ETD 14(5423)	Conduits for electrical installations: Part 1 General requirements (first revision)		
2	DOC.ETD 14(5424)	Conduits for electrical installations: Part 2 Metal conduits (first revision)		
3	DOC.ETD 14(5425)	Conduits for electrical installations: Part 3 Rigid plain conduits of insulating materials (first revision)		
4	DOC.ETD 14(5426)	Conduits for electrical installations: Part 4 Pliable self-recovering conduits of insulating materials (first revision)		
5	DOC.ETD 14(5284)	Conduits for electrical installations: Part 7 Flexible conduits ( revision of IS 3480)		
DRAFT	STANDARDS APPROVED FOR	WIDE CIRCULATION		
1	DOC.ETD 14(5546)	Conduit fittings for electrical installations :Part 3 conduit fittings of insulating material ( superseding IS 3419) (IEC 61035-2-2)		
2	DOC.ETD 14(5547)	Conduit fittings of electrical installations: Part 4 fittings for flexible conduits of metal, insulating or composite material and for pliable conduits of metal or composite material (IEC 61035-2-3)		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

3 DOC.ETD 14(5548) Plugs and socket-outlets for household and similar purposes: Part 2 Particular requirements for adoptors

### **DRAFT STANDARDS FORMULATED**

1 DOC.ETD 14(5497) Switchs for domestic and similar purposes (Third Revision of IS 3854)

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

### **ETD 15 ROTATING MACHINERY**

SCOPE - To prepare standards on rotating electrical machines like induction, synchronous, motors, generators, dc machines and turbines including carbon brushes for electrical machines (with the exception of traction machines and rotating machinery coming under the purview of other Committees)

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STAN	DARDS PUBLISHED			
1	IS 325:1996	Three-phase induction motors(first revision)	Jan 2007	2
	IEC 60034-1(1983)			
2	IS 900:1992	Code of practice for installation and maintenance of induction motors (Second revision)	Feb 2008	
3	* IS 996:1979   IEC 60034-1(1969)	Single-phase small ac and universal electric motors (second revision)	Jan 2007	3
4	IS 1231:1974   IEC 60072 (1971)	Dimensions of three-phase foot-mounted induction motors (third revision)	Feb 2008	4
5	IS 2223:1983   IEC 60072 (1971)	Dimensions of flange mounted ac induction motors (first revision)	Jan 2007	2
6	IS 2253:1974   IEC 34-7(1972)	Designation for types of construction and mounting arrangement of rotating electrical machines (first revision)	Jan 2007	
7	IS 2254:1985	Dimensions of vertical shaft motors for pumps (second revision)	Jan 2007	
8	IS 2968:1964	Dimensions of slide rails for electric motors	Jan 2007	
9	IS 2972(Part 1):1979	Textile motors: Part 1 Loom motors (first revision)	Jan 2007	2
10	IS 2972(Part 2):1979	Textile motors: Part 2 Card motors (first revision)	Jan 2007	1
11	IS 2972(Part 3):1979	Textile motors: Part 3 Spinning frame motors (first revision)	Jan 2007	
12	IS 3682:1966	Flameproof ac motors for use in mines	Jan 2007	
13	* IS 4029:1967	Guide for testing three-phase induction motors	Jan 2007	3
14	IS 4665(Part 1):1984	Portable electric motor-operated tools: Part 1 General requirements and tests (first revision)	Jan 2007	
15	IS 4665(Part 2):1984	Portable electric motor-operated tools:Part 2 Specific requirements for tools	Jan 2007	
16	* IS 4691:1985   IEC 60034-5(1981)	Degrees of protection provided by enclosure for rotating electrical machinery (first revision)	Mar 2004	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

* //	NDICATES STANDARDS UNDER REVISION	** INDICATES STANDARDS TO BE REVISED		
37	IS 10534:1983	Method of measurement of airborne noise emitted by gas turbine installations	Jan 2007	
36	IS 9919:1999	Guide for selection and use of carbon brushes for applications in rotating electrical machines	Feb 2008	
35	IS 9670:1980	Direct current micro motors for cassette tape recorders and other applications	Mar 2004	
34	IS 9628:1980	Three-phase induction motors with type of protection 'n'	Mar 2004	
33	IS 9582(Part 1):1980	Single-phase electric motors for definite purposes: Part 1 Domestic laundry machine motors	Mar 2004	1
32	IS 9320:1979	Guide for testing of direct current (dc) machines	Jan 2007	1
31	* IS 9283:1995	Motors for submersible pump sets (first revision)	Jan 2007	2
30	IS 8789:1996	Values of performance characteristics for three-phase induction motors (first revision)	Jan 2007	1
29	IS 8223:1999   IEC 60072-2(1990)	Dimensions and output series for rotating electrical machines (first revision)	Apr 2004	
28	IS 8151:1976	Single-speed three-phase induction motors for driving lifts	Jan 2007	
27	IS 7816:1975	Guide for testing insulation resistance of rotating machines	Jan 2007	
26	IS 7572:1974	Guide for testing single-phase ac and universal motors	Jan 2007	
25	IS 7538:1996	Three-phase squirrel cage induction motors for centrifugal pumps for agricultural applications (first revision)	Jan 2007	2
24	IS 7306:1974   IEC 60034-4(1967)	Methods for determining synchronous machin quantities from tests	Jan 2007	
23	IS 7132:1973   IEC 60034-1(1969)	Guide for testing synchronous machines	Jan 2007	
22	IS 6362:1995 / IEC 60034-6:1991	Designation of methods of cooling of rotating electrical machines	Jan 2007	
21	IS 5422:1996   IEC 60034-3(1988)	Turbine type generators (first revision)	Jan 2007	
20	IS 4889:1968   IEC 2 D	Method of determination of efficiency of rotating electrical machines	Jan 2007	
19	IS 4758:1968	Method of measurement of noise emitted by machines	Jan 2007	
18	* IS 4728:1975   IEC 60034-8(1972)	Terminal marking and direction of rotation for rotating electrical machinery (first revision)	Jan 2007	
17	IS 4722:2001   IEC 60034-03	Rotating electrical machines (second revision)	Sep 2006	

<sup>/</sup> INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>/</sup> INDICATES EQUIVALENT STANDARDS

38	IS 11537:1985	Centrifugal switch for single phase induction motors	Jan 2007	
39	IS 12065:1987	Permissible limits of noise level for rotating electrical	Mar 2004	1
	IEC 60034-9	machines		
40	IS 12066:1987	Three-phase induction motors for machine tools	Mar 2004	
41	* IS 12075:1987   IEC 60034-14	Mechanical vibration of rotating electrical machines with shaft heights 56 mm and higher-measurement,	Jan 2007	1
	IEC 60034-14	evaluation and limits of vibration severity (superseding IS 4729:1968)		
42	IS 12615:2004   IEC 60034,60038,50	Energy efficient induction motors three phase squirrel cage (first revision)	Nov 2004	1
43	IS 12642:1989	Brush-holders for slip rings group R-Type RA	Mar 2004	
	IEC 60778	Tradit included on one image group it hyportals	=00 .	
44	IS 12802:1989	Temperature rise measurement of rotating electrical	Mar 2004	1
77	IEC 60034-1(1983)	machines	Wai 2004	
45	* IS 12824:1989	Type of duty and classes of rating assigned to	Mar 2004	
10	IEC 60034-1(1983)	rotating electrical machines	Wai 2001	
46	IS 12998(Part 1):1991	Method f measurement of airborne noise emitted by	Feb 2008	
	/ ISO 1680-1:1986	rotating machinery: Part 1 Engineering method for free field conditions over a reflecting plane	. 00 =000	
47	IS 12998(Part 2):1991	Method of measurement of airborne noise emitted by	Feb 2008	
	/ ISO 1680-2:1986	rotating machinery: Part 2 Survey method		
48	IS 13079:1991	Stepping Motors	Jan 2007	
49	IS 13107:1991	Guide for measurement of winding resistance of an ac	Feb 2008	
.0	/ IEC 60279(1969)	machine during operation at alternating voltage	. 05 2000	
50	IS 13364(Part 1):1992	Specification for ac generators driven by reciprocating	Feb 2008	
	IEC 60034-1	internal combustion engine: Part 1 Rated up to 20 kVA		
51	IS 13364(Part 2):1992	Specification for ac generators driven by reciprocating	Feb 2008	
	IEC 60341(1983)	internal combustion engine: Part 2 Rated above 20 kVA and upto 1250 kVA		
52	IS 13466:1992	Specification for brushes for electrical machines	Feb 2008	
	IEC 60136, 467, 773	[superseding IS:3003 (Parts 3 and 4)-1977]		
53	IS 13525:1992	Flexible conductors for carbon brushes	Feb 2008	
54	IS 13529:1992	Guide on effects of unbalanced voltages on the	Feb 2008	
	IEC 600892(1987)	performance of three-phase cage induction motors		
55	IS 13555:1993	Guide for selection and application of three-phase ac	Mar 2004	
		induction mtors for different types of driven equipment		
56	IS 13584:1993	Specification for brush materials for electrical	Mar 2004	
	IEC 413(1972)	machinery [Superseding IS 3003(Part 2):1977]		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

57	IS 13586:1993   IEC 276(1968)	Definitions and nomenclature for carbon brushes, brush holders, commutators and slip rings for rotating electrical machinery (superseding IS:3003(Part 1)- 1977)	Mar 2004	
58	IS 13937(Part 1):1994 / ISO 7574-1:1985	Statistical method of determining and verifying standard noise emission values of machinery and equipment: Part 1 General conditions and definitions	Jan 2007	
59	IS 13937(Part 2):1994 / ISO 7574-2:1985	Statistical method of determining and verifying standard noise emission values of machinery and equipment: Part 2 Methods of stated values for individual machines	Jan 2007	
60	IS 13937(Part 3):1994 / ISO 7574-3:1985	Statistical method of determining and verifying standard noise emission values of machinery and equipment: Part 3 Simple (transition) method for stated values for batches of machines	Jan 2007	
61	IS 13937(Part 4):1994 / ISO 7574-1985	Statistical method of determining and verifying standard noise emission values of machinery and equipment: Part 4 Methods for stated values for batches of machines	Jan 2007	
62	IS 14195:1994 / IEC 61015(1990)	Brush-holders for electrical machines guide to the measurement of the static thrust applied to brush	Jan 2007	
63	IS 14196:1994 / IEC 60560(1977)	Definitions and terminology of brush-holders for electrical machines	Jan 2007	
64	IS 14197:1994 / IEC 60193:1965	Code for model acceptance tests of hydraulic turbines	Jan 2007	
65	IS 14198(Part 1):1994 / IEC 60953-1:1990	Rules for steam turbines thermal acceptance tests - Method A	Jan 2007	
66	IS 14198(Part 2):1994 / IEC 60953-2:1990	Rules for steam turbines thermal aceptance tests - Method B	Jan 2007	
67	IS 14205(Part 1):1994 / IEC 60045-1:1991	Steam turbines Part 1 Specification	Jan 2007	
68	IS 14222:1995 / IEC 60034-15:1990	Impulse withstand levels of rotating ac machines with form wound stator coils	Jan 2007	
69	IS 14376:1996   IEC 136(1986)	Brush holders for electrical machines	Jan 2007	
70	IS 14377:1996	Induction motors for fan used in air-conditioning and ventilation	Jan 2007	
71	IS 14568(Part 2):1998 / IEC 60072-2(1990)	Dimensions and output series for rotating electrical machines Part 2 Frame numbers 355 to 1000 and flange numbers 1180 to 2360	Jul 2003	
72	IS 14569:1999	Commutators for electrical machines	Feb 2004	
73	IS 14578:1999	Three-phase induction motors for use in nuclear power plants	Mar 2004	
74	IS 14582:1998	Single-phase small a.c. electric motors for centrifugal pumps for agricultural applications	Mar 2008	1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

75	IS 14889:2000	Copper tamping powder for carbon brushes	Dec 2005
76	IS 15429:2004	Storage, installation and maintenance of DC motors - Code of practice	Jun 2004
77	IS 15664:2006 / ISO 2314(1989)	Gas turbines - Acceptane tests	
78	IS 15665:2006 / ISO 11086(1996)	Gas turbines - Vocabulary	
79	IS 15666(Part 1):2006 / ISO 3977-1(1997)	Gas turbines - Procurement - Part 1: General introduction and definitions	
80	IS 15666(Part 2):2006 / ISO 3977-2(1997)	Gas turbines - Procurement - Part 2: Standard reference conditions and ratings	
81	IS 15666(Part 3):2006 / ISO 3977-3(2004)	Gas turbines - Procurement - Part 3: Design requirements	
82	IS 15666(Part 4):2006 / ISO 3977-4(2002)	Gas turbines - Procurement - Part 4: Fuels and environment	
83	IS 15666(Part 5):2006 / ISO 3977-5(2001)	Gas turbines - Procurement - Part 5: Applications for petroleum and natural gas industries	
84	IS 15666(Part 7):2006 / ISO 3977-5(2002)	Gas turbines - Procurement - Part 7: Technical information	
85	IS 15666(Part 8):2006 / ISO 3977-8(2002)	Gas turbines - Procurement - Part 8: Inspection, testing, installation and commissioning	
86	IS 15666(Part 9):2006 / ISO 3977-9(1999)	Gas turbines - Procurement - Part 9: Reliability, availability, maintainability and safety	
87	IS 15667:2006 / ISO 19860(2005)	Gas turbines - Data acqisition and trend monitoring system requirements for gas turbine installations	
88	IS 60034(Part 1):2004	Rotating electrical machines - Part 1 Rating and performance	
89	IS 60041:2000 / IEC 60041(1991)	Field acceptance tests to determine the hydraulic performance of turbines, storage pumps and pump turbines	Jun 2005
FINA	LISED DRAFTS UNDER PRINT		
1	DOC.ETD 15(5678)	Specification for single phase ac induction motors for general purpose (third revision of IS 996)	
2	DOC.ETD 15(5350)	Mechanical vibration of rotating electrical machines with shaft heights 56 mm and higher-measurement, evaluation and limits of vibration severity(superseding IS 4729:1968) (first revision of IS 12075)	
3	DOC.ETD 15(5701) / IEC 60034-5	Rotating eletrical machines - Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) - Classification (second revision of IS 4691)	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

4 DOC.ETD 15(5702) Rotating elements of the Markings are markings as

Rotating eletrical machines - Part 8: Terminal markings and direction of rotation (second revision of

IS 4728)

## DRAFT STANDARDS FINALIZED BUT NOT YET UNDER PRINT

1 DOC.ETD 15(5306) Guide for testing three phase induction motors

(revision of IS 4029)

### DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

1 DOC.ETD 15(5785) Three phase cage induction motors specifically

designed for IGBT converter supply

2 DOC.ETD 15(5787) Three phase cage induction motors when fed from

IGBT converters - Application Guide

#### DRAFT STANDARDS FORMULATED

1 DOC.ETD 15(5941) Motors for Submersible Pumpsets - Specification

(second revision of IS 9283)

2 DOC.ETD 15(5942) Type of duty and classes of rating assigned to rotating

electrical machiens (first revision of IS 12824)

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

### **ETD 16 TRANSFORMERS**

**SCOPE -** To prepare standards on power and distribution transformers, reactors, onload tap changers, etc, without limitation on voltage or power. Transformer accessories and voltage stablizers, testing transformers and furnace transformers are included.

(Instrument transformers, welding transformers and traction transformers are excluded)

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STAN	DARDS PUBLISHED			
1	IS 1180(Part 1):1989	Outdoor type three-phase distribution transformers upto and including 100 kVA 11 kV:Part 1 Non-sealed type (third revision)	Jul 2003	1
2	IS 1180(Part 2):1989	Outdoor type three-phase distribution transformers upto and including 100 kVA 11 kV:Part 2 Sealed type (first revision)	Jul 2003	
3	* IS 2026(Part 1):1977   IEC 60076(1977)	Power transformers: Part 1 General (first revision)	Jul 2006	3
4	* IS 2026(Part 2):1977   IEC 60076(1977)	Power transformers: Part 2 Temperature-rise	Jul 2006	2
5	* IS 2026(Part 3):1981   IEC 60076(1977)	Power transformers: Part 3 Insulation level and dielectric tests (Second revision)	Jul 2006	1
6	IS 2026(Part 4):1977   IEC 60076(1977)	Power transformers: Part 4 Terminal marking,tappings and connectioins (first revision)	Jul 2006	2
7	* IS 2026(Part 5):1994   IEC 60076-3-1(1987)	Power Transformer: Part 5 Transformer/Reactor bushings minimum external clearance in air - Specification	Nov 2004	
8	IS 2772:1982	Non-flameproof mining transformers for use below ground (first revision)	Jul 2006	
9	IS 3151:1982   IEC 60289(1968)	Earthing transformers (first revision)	Jul 2006	
10	IS 3639:1966	Fittings and accessories for power transformers	Jul 2006	
11	IS 5142:1969	Continuously variable voltage auto transformers	Jul 2006	2
12	IS 5553(Part 1):1989   IEC 60289(1988)	Reactors: Part 1 General	Jul 2003	
13	IS 5553(Part 2):1990   IEC 60 289(1988)	Reactors: Part 2 Shunt reactors	Jul 2003	
14	IS 5553(Part 3):1990   IEC 60289(1988)	Reactors: Part 3 Current limiting reactors and neutral earthing reactors	Jul 2003	
15	IS 5553(Part 4):1990   IEC 60289(1988)	Reactors: Part 4 Damping reactors	Nov 2004	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

16	IS 5553(Part 5):1989   IEC 60289(1988)	Reactors: Part 5 Tuning reactors	Nov 2004	
17	IS 5553(Part 6):1991   IEC 60289(1988)	Reactors: Part 6 Earthing transformers (Neutral couplers)	Jul 2006	
18	IS 5553(Part 7):1990   IEC 60289(1988)	Reactors: Part 7 Arc supression reactors	Nov 2004	
19	IS 5553(Part 8):1990   IEC 60289(1988)	Reactors: Part 8 Smoothing reactors	Nov 2004	
20	IS 6600:1972	Guide for loading of oil immersed transformers	Jul 2006	
21	IS 8447:1989	Manually operated voltage regulators for domestic use (first revision)	Jul 2003	1
22	IS 8448:1989	Automatic line voltage correctors (step type for domestic use) (first revision)	Jul 2003	2
23	IS 8468:1977	On-load tap changers	Jul 2006	1
24	IS 8478:1977	Application guide for on-load tap changers	Jul 2006	
25	IS 9147:1979	Cable sealing boxes for oil immersed transformers suitable for paper insulated lead sheathed cables for highest system voltages from 12 kV upto and including 36 kV	Jul 2006	
26	IS 9815(Part 1):1994	Servo-motor operated automatic line voltage correctors: Part 1 Correctors for single phase applications (second revision)	Nov 2004	
27	IS 10028(Part 1):1985	Code of practice for selection, installation and maintenance of transformers: Part 1 Selection	Jul 2006	
28	IS 10028(Part 2):1981	Code of practice for selection, installation and maintenance of transformers; Part 2 Installation (superseding IS:1886)	Jul 2006	
29	IS 10028(Part 3):1981	Code of practice for selection, installation and maintenance of transformers: Part 3 Maintenance (superseding IS:1886)	Jul 2003	1
30	IS 10161:1982	Moving coil voltage regulators	Jul 2006	
31	IS 10561:1983   IEC 606 (1978)	Application guide for power transformers	Jul 2006	
32	IS 11171:1985   IEC 60726(1982)	Dry type power transformers	Jul 2006	
33	IS 11333:1985	Flameproof dry type transformers for use in mines	Jul 2006	
34	IS 12977:1990	Arc furnance transformers	Nov 2004	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

35	IS 13956:1994	Testing transformers	Nov 2004
36	IS 13964:1994   IEC 551 (1976)	Methods of measurement of transformer and reactor sound levels	Nov 2004
FINAL	SED DRAFTS UNDER PRINT		
1	DOC.ETD 16(5802) / IEC 61558-1	Safety of power Transformer, power supply units and similar part 1 general requirement and test.	
2	DOC.ETD 16(5803) / IEC 61558-2-6	Safety of power Transformers, power supply units and similar: Part 2 particular requirements, Section 6 Safety Isolating transformers for general use.	
DRAF	STANDARDS FINALIZED BUT	NOT YET UNDER PRINT	
1	DOC.ETD 16(5991)	Power Transformers - Part 7 Loading guide for oil immersed power transformers	
2	DOC.ETD 16(5992)	Power Transformers - Part 8 Application guide	
3	DOC.ETD 16(5993)	Power Transformers - Part 10 Determination of sound levels	
4	DOC.ETD 16(5843) / IEC 61558-2-7	safety of power Transformers, power supply and similar part 2: Particular requirements for transformers for toys.	
DRAF	STANDARDS ISSUED IN WIDE	CIRCULATION	
1	DOC.ETD 16(6009)	Power Transformers - Part 3 Insulaiton levels, dielectric tests and external clearances in asir (third revision of IS 2026(Part 3)	
2	DOC.ETD 16(6058)	Power Transformers - Part 1 General (first revision of IS 2026(Part 1)	
3	DOC.ETD 16(6059)	Power Transformers - Part 2 Temperature rise (first revision of IS 2026(Part 2)	
4	DOC.ETD 16(6061)	Power Transformers - Part 5 Ability to withstand short circuit (first revision of IS 2026(Part 5)	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

## ETD 17 INDUSTRICAL ELECTROHEATING EQUIPMENT

**SCOPE -** To prepare standards on dimensions, methods of tests, characteristics and safety requirements for industrial electrical heating installations and their components

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STAN	DARDS PUBLISHED			
1	IS 8992:1978   IEC 60396(1972)	Test methods for induction furnaces with submerged channels	Mar 2006	;
2	IS 9021:1978   iec 60398(1972)	General test conditions for industrial electro-heating equipment	Mar 2006	;
3	IS 9029:1978   IEC 60397(1972)	Methods of tests for batch furnaces with metallic heating resistors	Mar 2006	5 1
4	** IS 9050:1979   IEC 60239(1967)	Nominal dimensions of cylindrical machines graphite electrodes with threaded sockets and connecting pins for use in electric arc furnaces.	Mar 2006	;
5	IS 9080(Part 1):1979	Safety requirements in electro-heat installations: Part 1 General requirements	Mar 2006	j
6	** IS 9080(Part 2/Sec 1):1979   IEC 60519-2(1975)	Safety requirements in electro-heat installations: Part 2 Particular requirements for resistance heating equipment, Section 1 Protection in direct resistance heating installations	Mar 2006	ì
7	** IS 9080(Part 2/Sec 2):1980	Safety requirements in electro-heat installations: Part 2 Particular requirements for resistance heating equipment, Section 2 Protection in indirect resistance heating installations	Mar 2006	ì
8	** IS 9080(Part 2/Sec 3):1981   IEC 60519-2(1975)	Safety requirements in electro-heat installations: Part 2 Particular requirements for resistance heating equipment, Section 3 Protection in potassium and sodiumnitrate and nitrite bath furnaces	Mar 2006	;
9	** IS 9080(Part 2/Sec 4):1981   IEC 60519-2(1975)	Safety requirements in electro-heat installations: Part 2 Particular requirements for resistance heating equipment, Section 4 Protection in installations used for drying varnishes and other similar products	Mar 2006	ì
10	** IS 9080(Part 4):1981   IEC 60519-4(1977)	Safety requirements in electro-heat installations: Part 4 Particular requirements for arc furnace installations.	Mar 2006	j
11	IS 10098:1982   IEC 60240(1967)	General requirements for electric infra-red emitters for heating purposes.	Mar 2006	;
12	** IS 10122:1982   IEC 60545(1979)	Methods of tests for crucible induction furnaces	Mar 2006	<b>j</b>

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

13	** IS 10215:1982   IEC 60683(1980)	Methods of tests for submerged arc furnaces	Mar 2006
14	IS 11692:1986   IEC 27(CO)60	Method of tests for electro-slag emelting furnaces	Feb 2003
15	IS 11712:1986   IEC 27(CO)1959	Safety requirements for electro-slag remelting furnaces.	Feb 2003
16	IS 12188:1987	Electric direct-arc melting furnaces	Feb 2003
17	IS 13263:1992   IEC 60680(1980)	Methods of test for plasma equipment for electroheat installations.	Sep 2003
18	* IS 60519(Part 1):1984 / IEC 60519-1:1984	Safety in electro-heat installations: Part 1General requirements [Superseding IS 9080 ( Part 1)].	Nov 2005
19	IS 60519(Part 3):1988 / IEC 60519-3:1988	Safety in electroheat installations: Part 3 Particular requirements for induction and conduction heating and induction melting installations [Superseding IS 9080 (Part 3)].	Nov 2005
20	IS 60519(Part 5):1980 / IEC 60519-5:1980	Safety in electroheat installation : Part 5 Plasma installations	Nov 2005
21	* IS 60519(Part 9):1987 / IEC 60519-9:1980	Safety in electroheat installations: Part 9 Particular requirements for high frequency dielectric heating installations	Nov 2005
22	IS 61308:1994 / IEC 61308:1994	High frequency dielectric heating installations -Test methods for the determination of power output.	Nov 2005
DRA	FT STANDARDS ISSUED IN WIDE	CIRCULATION	
1	DOC.ETD 17(5614) / IEC 60519-2(1992)	Safety in electroheat installations: Part 2 Particular requirements for resistance	
2	DOC.ETD 17(5615) / IEC 60519-4(2000)	Safety in electroheat installations: Part 4 Particular requirements for arc furnace installations	
3	DOC.ETD 17(5616) / IEC 60519-11(1997)	Safety in electroheat installations: Part 11 Particular requirements for installations for electromagnetic stirring, transport or pouring of metal liquids	
4	DOC.ETD 17(5617) / IEC 60646(1992)	Test methods for crucible induction furnaces	
DRA	FT STANDARDS FORMULATED		
1	DOC.ETD 17(5612) / IEC 60519-1(2003)	Safety in electroheat installations: Part 1 General requirements [first revision of IS 60519 (Part 1):1984/ IEC 60519-1:1984]	
2	DOC.ETD 17(5613) / IEC 60519-9(1987)	Safety in electroheat installations: Part 9 Particular requirements for high frequency dielectric heating installations [first revision of IS 60519 (Part 9):1987/ IEC 60519-9:1987]	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

### ETD 18 INDUSTRIAL PROCESS MEASUREMENT AND CONTROL

SCOPE - To prepare standards for systems and elements used for industrial process measurement and control concerning continuous and batch processes.
To coordinate the standardization of those features of related elements which affect suitability for integration into such systems operating with electrical, pneumatic, hydraulics mechanical or other systems of measurements and/or control

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STAN	DARDS PUBLISHED			
1	IS 2053:1974	Thermocouple pyrometers (first revision)	Sep 2003	}
2	* IS 2054:1962	Referance tables for nickel/chromium- nickel/aluminium thermocouples	Sep 2005	5 2
3	* IS 2055:1962	Reference tables for platinum/rhodium-platinum thermocouples	Sep 2005	5 2
4	* IS 2056:1962	Reference tables for copper-constant thermocouples	Sep 2005	5 2
5	* IS 2057:1962	Reference tables for iron-constant thermocouples	Sep 2005	5 2
6	IS 2711:1979	Direct reading pH meters (second revision)	Sep 2003	3 1
7	IS 2806:1992	Guide to electrical resistance thermometry (first revision)	Apr 2003	<b>;</b>
8	IS 2848:1986	Industrial platinum resistance thermometer sensors (first revision)	May 2006	;
9	IS 3624:1987	Pressure and vacuum gauges (second revision )	Apr 2003	}
10	IS 3944:1982	Methods for determination of flowtime by use of flow cups (first revision)	Sep 2005	;
11	IS 4309:1979	Method of measurement on direct reading pH meters (first revision)	Sep 2003	<b>;</b>
12	IS 5883:1970	Nickel resistance thermometer elements	Sep 2003	}
13	* IS 6720:1972	Referance tables for plantinum/30 percent rhodium-platinum/6 percent rhodium thermocouples	Sep 2003	}
14	IS 6804:1972	Glass electrodes for direct reading pH meters	Sep 2003	}
15	IS 7358:1984	Thermocouples (first revision)	Sep 2005	;
16	IS 7722:1975	Analogue pneumatic signals for process control systems	Sep 2003	;

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

17	IS 7728:1984	Analogue dc current signals for process control systems (first revision)	Sep 2005	
18	* IS 7988:1976	Referance tables for chromel-kopel thermocouples	Sep 2003	
19	IS 8018:1976	Platinum and platinum alloy wires for thermocouples elements	Sep 2003	
20	IS 8457:1977	Tyre pressure gauges for automobiles (Pocket type)	Sep 2003	
21	IS 8493:1977	Analogue dc voltage signals for industrial process measurements and control systems	Sep 2005	
22	IS 8495(Part 1):1977	Ceramic components for thermocouples and resistance thermometers: Part 1 Terminal blocks	Sep 2003	
23	IS 8784:1987	Thermocouple compensating cable (second revision)	Apr 2003	
24	IS 8824(Part 1):1978	Electrical moisture meters: Part 1 For foodgrains	Sep 2003	1
25	IS 8824(Part 2):1988	Electrical moisture meters: Part 2 For jute (conductivity type)	Sep 2005	
26	IS 8935:1985	Electric solenoid operated actuators (first revision)	Sep 2005	
27	IS 9319:1979	Electronic self-balancing potentiometric indicators and recorders	Sep 2003	
28	IS 9334:1986	Electric motor operated actuators (first revision)	May 2006	
29	IS 9347:1979	Charts for recording instruments	May 2006	
30	IS 9463:1980	Electronic self-balancing bridge indicators and recorders	Sep 2003	
31	IS 10144:1982	Electronic speed limiters for diesel vehicles	Sep 2003	1
32	* IS 10189(Part 1):1982	Industrial process control valves: Part 1 General requirements and tests	Sep 2003	
33	* IS 10189(Part 2/Sec 1):1993   IEC 60534-2-1(1978)	Industrial process control valves: Part 2 Flow capacity, Section 1 Sizing equations for incompressible fluid flow under installed conditions	Sep 2003	
34	** IS 10189(Part 2/Sec 2):1993   IEC60534-2-2(1980)	Industrial process control valves: Part 2 Flow capacity Secton 2 Sizing equations for compressible fluid flow under installed conditions	Sep 2003	
35	IS 10398:1982	Zener barrier for intrinsically safe process control instruments	May 2006	
36	* IS 10625:1983	Reference tables for nickel/chromium-copper/nickel (chromel-constantan) thermocouples	Sep 2005	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

37	IS 10639:1983	Disappearing filament type optical pyrometers	May 2006	
38	IS 11222:1985	Dials, scales and indexes for indicating analogue measuring instruments	Sep 2005	
39	** IS 12051:1987	Reference tables for nickel-chromium-silicon (Nicrosil/Nisil) Type N Thermocouples	Sep 2003	
40	IS 12434:1988	Coating/plating thickness tester, destructive type	Sep 2003	
41	IS 12554(Part 1):1988	Non-destructive coating thickness testing instruments: Part 1 Eddy current instruments	Sep 2003	
42	IS 12554(Part 2):1999	Non-destructive coating thickness testing instruments: Part 2 Magnetic instruments	Aug 2004	
43	IS 12555:1988	Signal conditioning devices for process control systems	Sep 2003	
44	IS 12556:1988	Binary direct voltage signals for process measurement and control systems	Sep 2003	
45	IS 12579:1988	Base-metal mineral insulated thermocouple cables and thermocouples	Sep 2003	
46	IS 13122(Part 1):1993	Transmitters for use in industrial process control systems: Part 1 Methods for evaluating the performance	May 2006	
47	IS 13122(Part 2):1991	Transmitters for use in industrial process control systems: Part 2 Guidance, installation, inspection and routine testing	May 2006	
48	IS 13211:1991	Vapour pressure dial-type thermometers	May 2006	
49	IS 13673(Part 1):1993	Expression of proformance of elctro chemical analyzers :Part 1 General	Sep 2003	
50	IS 13673(Part 2):1993	Expression of performance of electrochemical analyzers: Part 2 pH values	Sep 2003	1
51	IS 13673(Part 3):1993	Expression of proformance of electrochemical analyzers: Part 3 Electrolytic conductivity	Sep 2003	
52	IS 13673(Part 4):1998	Expression of performance of electrochemical analyzers: Part 4 Standard for measuring oxygen dissolved in water	Dec 2003	
53	IS 13673(Part 5):1999	Expression of performance of electrochemical analyzers: Part 5 Oxidation reduction potential or retard potential	Feb 2004	
54	IS 14254(Part 1):2006 / IEC 61131-1(2003)	Programmable controller: Part 1 General information (first revision)		
55	IS 14254(Part 2):2006 / IEC 61131-2(2003)	Programmable Controllers: Part 2 Equipment Requirements and Tests (first revision)		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

# FINALISED DRAFTS UNDER PRINT

ГІІЛА	LISED DRAFTS UNDER FRINT	
1	DOC.ETD 18(5672) / IEC 60534-2-1:1998	Industrial process control valves Part 2/Sec 1Flow capacity - Sizing equations for fluid flow under installed conditions
2	DOC.ETD 18(5673) / IEC 60534-2-3:1997	Industrial - process control valves - Part 2/Sec 3 flow capacity tet procedures
3	DOC.ETD 18(5676) / IEC 62264-1:2003	Enterprise control system Integration Part 1 Models and Terminology
4	DOC.ETD 18(5677) / IEC 62264-2:2005	Enterprise control system Integration Part 2 Objects Models Attributes
5	DOC.ETD 18(5679) / IEC 61508-1:2000	Functional safety of electrical/electronic/progrtammable elctronic safety - related system - Part 1 General requirement
6	DOC.ETD 18(5680) / IEC 61508-2:2000	Functional safety of electrical/electronic/progrtammable electronic safety - related system - Part 2 requirement for eectrical/Electronic/programmable electronic safety - related systems
7	DOC.ETD 18(5681) / IEC 61508-3:1998	Functional safety of electrical/electronic/progrtammable elctronic safety - related system - Part 3 software requirements
8	DOC.ETD 18(5682) / IEC 61508-4:1998	Functional safety of electrical/electronic/progrtammable elctronic safety - related system - Part 4 Definitions and abbreviations
9	DOC.ETD 18(5683) / IEC 61508-5:1998	Functional safety of electrical/electronic/progrtammable electronic safety - related system - Part 5 Examples of Methods for the determinations of safety integrity levels
10	DOC.ETD 18(5684) / IEC 61508-6:2000	Functional safety of electrical/electronic/progrtammable elctronic safety - related system - Part 6 Guidelies on the applications
11	DOC.ETD 18(5685) / IEC 61508-7:2000	Functional safety of electrical/electronic/progrtammable electronic safety - related system - Part 7 Over view of techniques and measures
12	DOC.ETD 18(5711) / IEC 61508-0:2005	Functional safety of electrical/electronic/progrtammable elctronic safety - related system - Part 0: Functional Safety
13	DOC.ETD 18(5712) / IEC 61511-1:2003	Functional safety of electrical/electronic/progrtammable electronic safety - related system - Part 1 Famework, definitions, System, hardware and software requirements
14	DOC.ETD 18(5713) / IEC 61511-2:2003	Functional safety - safety instrumented systems for the process industry sector Part 2 Guidelines for the Applications of IEC 61511-1:2003
15	DOC.ETD 18(5714) / IEC 61511-3:2003	Functional safety - safety instrumented systems for the process industry sector - Part 3 Guidance for the determination of the required safety integrity levels
* 1810	ICATES STANDADOS UNDED DEVISION	** INDICATES STANDADOS TO DE DEVISED

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

# DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

1	DOC.ETD 18(5650)	Thermocouples - Part 1 Referene Tables (IEC 60584-1:1995)
2	DOC.ETD 18(5671)	Industrial Proess Control Valves - Part 1 Control Valve Terminology and General Considerations [first reision of IS 10189(Part 1)] (IEC 60534-1:2005)
3	DOC.ETD 18(5672)	Industrial Proess Control Valves - Part 2/Sec 1 Flow Capacity - Sizing Equations for Fluid Flow Under Installed Conditions [first reision of IS 10189(Part 2/Sec 1)] (IEC 60534-2-1:998)
4	DOC.ETD 18(5673)	Industrial Proess Control Valves - Part 2/Sec 3 Flow Capacity - Test Procedures (IEC 60534-2-3:1997)
5	DOC.ETD 18(5674)	Industrial Proess Control Valves - Part 4 Inspection and Routine Testing (IEC 60534-4:1999)
6	DOC.ETD 18(5675)	Industrial Proess Control - Safetu of Analyser Houses (IEC 61285:2004)
7	DOC.ETD 18(5676)	Enterprises - Control System Integration - Part 1 Models and Terminology (IEC 62264-1:2003)
8	DOC.ETD 18(5677)	Enterprises - Control System Integration - Part 2 Object Model Attributes (IEC 62264-2:2005)
9	DOC.ETD 18(5679)	Functional Safety of Electrical/Electronic/Programmable Electronic Safety- related System Part 1: General Requirement (IEC 61508-1:1998)
10	DOC.ETD 18(5680)	Functional Safety of Electrical/Electronic/Programmable Electronic Safety- related System Part 2: Requirements for Electrical/Electronic/Programmable Electronic Safety- related Systems (IEC 61508-2:2000)
11	DOC.ETD 18(5681)	Functional Safety of Electrical/Electronic/Programmable Electronic Safety-related System Part 3 Software Requirement (IEC 61508-3:1998)
12	DOC.ETD 18(5682)	Functional Safety of Electrical/Electronic/Programmable Electronic Safety-related System Part 4 Definitions and Abbreiations (IEC 61508-4:1998)
13	DOC.ETD 18(5683)	Functional Safety of Electrical/Electronic/Programmable Electronic Safety- related System Part 5 Examples of Methods for the Determinations of Safety Integrity Levels (IEC 61508- 5:1998)
14	DOC.ETD 18(5684)	Functional Safety of Electrical/Electronic/Programmable Electronic Safety- related System Part 6 Guidelines on the Applications of IEC 61508-2 and 61508-3 (IEC 61508-6:2000)

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

15	DOC.ETD 18(5685)	Functional Safety of Electrical/Electronic/Programmable Electronic Safety- related System Part 7 Over View of Techniques and Measurements (IEC 61508-7:2000)
16	DOC.ETD 18(5711)	Functional Safety of Electrical/Electronic/Programmable Electronic Safety- related System Part 0 Functional safety and iEC 61508(IEC/TR 61508-0:2005)
17	DOC.ETD 18(5712)	Functional safety - Safety instrumented systems for the process industry sector - Part 1 Framework, definitions, systems, hardware and software requirements (IEC 61511-1:2003
18	DOC.ETD 18(5713)	Functional safety - Safety instrumented systems for the process industry sector - Part 2 Guidelines for the applications of IEC 61511-1
19	DOC.ETD 18(5714)	Functional safety - Safety instrumented systems for the process industry sector - Part 3 guidelines for the determinations of the required safety integrity levels.

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

### ETD 19 HIGH VOLTAGE ENGINEERING

**SCOPE -** To prepare standards for high voltage testing techniques and for different types of tests belonging there to such as high voltage ac, dc and impulse tests and high current impulse tests, definitions and basic principles of insulation coordination and insulation levels

To prepare appllication guides recommending the insulation levels in relation to possibilities of over-voltage protection devices. The work also includes formulation of standards for clearances and creepage distances

SI. No	. IS Number/ DOC Number	Title	Reaffirm Date	Am
STAN	IDARDS PUBLISHED		Date	
1	* SP 39 : 1987	Special publication-Guide for insulation coordination within low voltage systems	Mar 2001	
2	IS 1876:2005 / IEC 60052(2002)	Voltage measurement by means of standard air gaps(first revision)		
3	IS 2071(Part 1):1993 / IEC 60060-1(1989)	High voltage test- techniques: Part 1 General definitions and test requirements (second revision).	Aug 2004	ŀ
4	* IS 2071(Part 2):1974	Methods of high voltage testing: Part 2 Test procedures (first revision)	Mar 2006	5 1
5	* IS 2071(Part 3):1976	Methods of high voltage testing: Part 3 Measuring devices (first revision)	Mar 2006	;
6	** IS 2165(Part 1):1977   IEC 60071-1(1976)	Insulation coordination: Part 1 Phase to earth insulation coordination principles and rules (second revision)	Mar 2006	5 1
7	** IS 2165(Part 2):1983   IEC 60071-3(1982)	Insulation coordination: Part 2 Phase to phase insulation coordination principles and rules	Mar 2006	;
8	* IS 3716:1978   IEC 60071-2(1976)	Application guide for insulation coordination (first revision)	Mar 2006	3 2
9	* IS 6209:1982	Methods for partial discharge measurement (first revision)	Mar 2006	;
10	* IS 8690:1977	Application guide for measuring devices for high voltage testing	Mar 2006	;
11	IS 11349:1985   IEC 60790(1984)	Oscilloscopes and peak voltmeters for impulse tests	Mar 2006	;
12	IS 15382(Part 1):2003 / IEC 60664-1(2002)	Insulation coordination for equipment within low voltage system: Part 1 Principles requirements and test	Sep 2003	}
13	IS 15382(Part 2/Sec 1):2003 / IEC 60664-2-1(1977)	Insulation coordination for equipment within low voltage system: Part 2 Appication guide, Section 1 Dimensioning procedure worksheets and dimensioning examples	Sep 2003	<b>,</b>
14	IS 15382(Part 3):2006 / IEC 60664-3(2003)	Insulation coordination for equipment within low voltage system: Part 3 Use of coatings, potting or moulding for protection against pollution		
* INDI	CATES STANDARDS UNDER REVISION	** INDICATES STANDARDS TO BE REVISED		
/ INDI	CATES DUAL NUMBER STANDARDS	INDICATES EQUIVALENT STANDARDS		

15	IS 15382(Part 4):2003 / IEC 60664-4(1997)	Insulation coordination for equipment within low voltage system: Part 4 Consideration of high frequency voltage stress	Sep 2003
16	IS 15638(Part 1):2006 / IEC 61083-1(2001)	Instruments and software used for measurement in high voltage impluse tests: Part 1 Requirements for instruments( Superseeding IS 11349)	
17	IS 15638(Part 2):2006 / IEC 61083-2(1996)	Instruments and software used for measurements in high voltage impulse tests: Part 2 Evaluation of software used for the determination of the parameters of impulse waveforms (Superseeding IS 11349)	

### **FINALISED DRAFTS UNDER PRINT**

1 DOC.ETD 19(5429) High voltage test techniques - Partial discharge

measurements (IEC 60270:2000) (Superseeding IS

6209)

## DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

1 DOC.ETD 19(5833) High Voltage test-techniques Part 3: Definitions and requirement for on-site testing

#### **ETD 20 ELECTRICAL INSTALLATIONS**

**SCOPE** - To prepare standards for safety and related matters in designing, erection and maintenance of electrical installations from the point of view of safety and good practice that would, amongst other things, promote compatibility between such standards and those concerning the equipment installed

The work includes electrical installations in buildings for different occupancies and outdoor sites of temporary or permanent nature and also installations in the ships

NOTE- The standards to be prepared will not cover codes pertaining to individual equipment

	IS Number/ DOC Number	Title	Reaffirm	A
STANI	DARDS PUBLISHED		Date	Am
1	* SP 30 : 1985	National Electrical Code	Mar 2005	
2	SP 31 : 1986	Special Publication-Chart on treatment for electric- shock	Mar 2006	
3	IS 732:1989	Code of practice for electrical wiring installations (third revision)	Mar 2005	
4	IS 2309:1989	Code of practice for protection of buildings and allied structures against lightning (second revision)	Mar 2005	1
5	IS 2551:1982	Danger notice plates (first revision)	Mar 2005	
6	IS 3043:1987	Code of practice for earthing	Mar 2006	1
7	IS 4648:1968	Guide for electrical layout in residential buildings	Aug 2007	
8	IS 5216(Part 1):1982	Recommendations on safety procedures and practices in electrical work: Part 1 General (first revision)	Mar 2005	
9	IS 5216(Part 2):1982	Recommendations on safety procedures and practices in electrical work: Part 2 Life saving techniques (first revision)	Mar 2005	
10	IS 7689:1989	Guide for the control of undesirable static electricity (first revision)	Mar 2005	
11	IS 7752(Part 1):1975	Guide for improvement of power factor in consumer installation: Part 1 Low and medium supply voltages	Mar 2006	
12	IS 8061:1976	Code of practice for design, installation and maintenance of service lines upto and including 650 V	Mar 2006	
13	IS 8437(Part 1):1992 / IEC 60479-1(1984)	Guide on effects of current passing through human body: Part 1General aspects(first revision)	Aug 2007	
14	IS 8437(Part 2):1992 / IEC 60479-2(1987)	Guide on effects of current passing through human body: Part 2 Special aspects (first revision).	Aug 2007	
15	IS 8884:1978	Code of practice for the installation of electric bells and call systems	Aug 2007	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

16	IS 8923:1978	Warning symbol for dangerous voltages	Mar 2005
17	IS 8969:1978	Code of practice for installation and maintenance of impulse and electronic master and slave electric clock systems	Mar 2006
18	IS 10242(Part 1/Sec 1):1997   IEC 60092-101(1980)	Electrical installations in ships: Part 1 General, Section 1 Definitions and general requirements (first revision)	Sep 2007
19	* IS 10242(Part 2/Sec 1):1982   IEC 60092-201(1980)	Electrical installations in ships: Part 2 System design, Section 1 General	Mar 2004
20	IS 10242(Part 2/Sec 2):1983   IEC 60092-202(1980)	Electrical installations in ships: Part 2 System design, Section 2 Protection	Sep 2007
21	IS 10242(Part 2/Sec 4):1993   IEC 60092-204(1987)	Electrical installationss in ships: Part 2 System design, Sec 4 Electric and electrohydraulic steering gear	Mar 2004
22	IS 10242(Part 3/Sec 1):1983   IEC 60092-301(1980)	Electrical installations in ships: Part 3 Equipment, Section 1 Generators and motors	Sep 2007
23	IS 10242(Part 3/Sec 2):1984   IEC 60092-302(1980)	Electrical installations in ships: Part 3 Equipment, Section 2 Switchgear and controlgear assemblies	Sep 2007
24	IS 10242(Part 3/Sec 3):1984   IEC 60092-303(1980)	Electrical installations in ships: Part 3 Equipment, Section 3 Transformers for power and lighting	Sep 2007
25	IS 10242(Part 3/Sec 4):1987   IEC 60092-304(1980)	Electrical installations in ships: Part 3 Equipment, Section 4 Semi-conductor convertors	Sep 2007
26	IS 10242(Part 3/Sec 5):1990   IEC 60092-305(1980)	Electrical installations inn ships: Part 3 Equipment, Section 5 Accumulators (storage) batteries	Sep 2007
27	IS 10242(Part 3/Sec 6):1986   IEC 60092-306(1980)	Electrical installations in ships: Part 3 Equipment, Section 6 Luminaires and accessories	Sep 2007
28	IS 10242(Part 3/Sec 7):1990   IEC 60092-307(1980)	Electrical installations in ships:Part 3 Equipment, Section 7 Heating and cooking appliances	Sep 2007
29	IS 10242(Part 3/Sec 10):1992   IEC 60092-350	Electrical installations in ships: Part 3 Equipment, Section 10 General construction and test requirements for low voltage shipboard power cables	Mar 2004
30	IS 10242(Part 3/Sec 11):1986   IEC 60092-351(1983)	Electrical installations in ships: Part 3 Equipment, Section 11 Insulating materials for shipboard power cables	Sep 2007
31	IS 10242(Part 3/Sec 12):1986   IEC 60092-352(1979)	Electrical installations in ships: Part 3 Equipment, Section 12 Choice and installation of cables for low voltage systems	Sep 2007
32	IS 10242(Part 3/Sec 13):1992   IEC 60092-353(1988)	Electrical installations in ships: Part 3 Equipment, Section 13 Single and multicore cables with extruded solid insulation for rated voltage 0.6/1 kV	Sep 2007
33	IS 10242(Part 3/Sec 19):1990   IEC 60092-359(1987)	Electrical installations in ships: Part 3 Equipment, Section 19 Sheathing materials for telecommunication and power shipboard cables	Sep 2007

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

34	IS 10242(Part 3/Sec 23):1987   IEC 60092-373(1977)	Electrical installations in ships: Part 3 Equipment, Section 23 Shipboard telecommunication cables and radio frequency cables: Shipboard flexible coaxial cables	Sep 2007
35	IS 10242(Part 3/Sec 24):1987   IEC 60092-374(1977)	Electrical installations in ships: Part 3 Equipment, Section 24 Shipboard telecommunication cables and radiofrequency cables: Telephone cables for non- essential communication services	Sep 2007
36	IS 10242(Part 3/Sec 25):1987   IEC 60092-375(1977)	Electrical installations in ships: Part 3 Equipment, Section 25 Shipboard telecommunication cables and radio frequency cables: General instrumentation, control and communication cables	Sep 2007
37	IS 10242(Part 3/Sec 26):1987   IEC 60092-376(1983)	Electrical installations in ships: Part 3 Equipment, Section 26 Shipboard telecommunication cables: Shipboard multicore cables for control circuits	Sep 2007
38	IS 10242(Part 4):1992   IEC 60092-401(1980)	Electrical installations in ships: Part 4 Installation and test of completed installation	Sep 2007
39	IS 10242(Part 5/Sec 1):1993   IEC 60092-501(1984)	Electrical installations in ships: Part 5 Special features, Sec 1 Electric propulsion plant	Mar 2004
40	* IS 10242(Part 5/Sec 2):1997   IEC 60092-502(1999)	Electrical installations in ships: Part 5 Special features, Section 2 Tankers	Sep 2007
41	IS 10242(Part 5/Sec 3):1993   IEC 60092-503(1975)	Electrical installations in ships: Part 5 Special features Sec 3 ac supply system with voltage in the range above 1 kV up to and including 11 kV	Mar 2004
42	IS 10242(Part 5/Sec 4):1998   IEC 60092-504(2001)	Electrical installations in ships: Part 5 Special features, Section 4 Control and instruments	Dec 2003
43	IS 13234:1991 / IEC 60909(1988)	Guide for short circuit current calculations In three-phase ac systems(superseding IS 5728)	Aug 2007
44	IS 13235:1991 / IEC 60865(1986)	Calculation of the effects of short-circuit currents Superseding IS 5728:1970)	Aug 2007
45	IS 14479:1997   IEC 60 533(1999)	Electromagnetic compatibility of electrical and electronic installation in ships	Sep 2002
46	IS 14577:1998 / IEC 60363(1998)	Short-circuit current evaluation with special regard to rated short-circuit capacity of circuit-breakers in installations in ships	Jun 2003 rror

## DRAFT STANDARDS FINALIZED BUT NOT YET UNDER PRINT

1 DOC.ETD 20(5498) National Electrical Code(first revision of SP 30)

### DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

DOC.ETD 20(5838)

Chapter 1 of IS 732 Electrical installations of buildings - Code of practice for electrical wjiring installation - Low voltage (voltage not exceeding 1000 V ac or 1500 V dc between conductors or 600 V ac or 900 V dc between conductors and earth)

Chapter 1 Definitions, fundamental requirements, principles, assessment of general characteristics (fourth revision of IS 732)

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

2 DOC.ETD 20(5919) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 1 Protection against electric shock (fourth revision of IS 732) 3 DOC.ETD 20(5920) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 2 Protection against thermal effects ((fourth revision of IS 732) 4 DOC.ETD 20(5921) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 3 Protection against voltage disturbances and electromagnetic distribuances (fourth revision of IS 732) 5 DOC.ETD 20(5923) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 4 Protection against voltage disturbances and electromagnetic distribuances (fourth revision of IS 732) 6 DOC.ETD 20(5924) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 6 Protection against lightning electromagnetic impulse (fourth revision of IS 732) 7 DOC.ETD 20(5925) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 7 Protection of sturctures against lightning (fourth revision of IS 732) 8 DOC.ETD 20(5927) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5A General principles (fourth revision of IS 732) 9 DOC.ETD 20(5928) hapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5B Shielding of structures, bonding inside structures and earthing (fourth revision of IS 732) 10 DOC.ETD 20(5929) hapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5C Requirements of surge protective devices (fourth revision of IS 732) 11 DOC.ETD 20(5930) hapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5D Protection against lightning, Sub section			
Section 2 Protection against thermal effects ( (fourth revision of IS 732)  Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 3 Protection against overcurrent ( (fourth revision of IS 732)  DOC.ETD 20(5923)  Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 4 Protection against voltage disturbances and electromagnetic distrubances (fourth revision of IS 732)  Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 6 Protection against lightning electromagnetic impulse (fourth revision of IS 732)  DOC.ETD 20(5925)  Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 7 Protection of surretures against lightning (fourth revision of IS 732)  DOC.ETD 20(5927)  Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5A General principles (fourth revision of IS 732)  DOC.ETD 20(5928)  DOC.ETD 20(5928)  Appter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5B Shielding of structures, bonding inside structures and earthing (fourth revision of IS 732)  DOC.ETD 20(5929)  Appter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5C Requirements of surge protective devices (fourth revision of IS 732)  Appter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5C Requirements of surge protective devices (fourth revision of IS 732)  DOC.ETD 20(5930)  Appter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5D Protection against lightning, Sub section 5E Application guide (fourth revision of IS 732)  DOC.ETD 20(5931)  Appter 2 of IS 732 Chapter 3 Electrical installations of buildings, Section 1 Selection and erection of electrical equipment - common rules (fourth revision of IS 732)	2	DOC.ETD 20(5919)	Section 1 Protection against electric shock (fourth
Section 3 Protection against overcurrent ( (fourth revision of IS 732)  Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 4 Protection against voltage disturbances and electromagnetic distrubances (fourth revision of IS 732)  DOC.ETD 20(5924)  Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 6 Protection against lightning electromagnetic impulse (fourth revision of IS 732)  DOC.ETD 20(5925)  Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 7 Protection of sturctures against lightning (fourth revision of IS 732)  DOC.ETD 20(5927)  Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5A General principles (fourth revision of IS 732)  DOC.ETD 20(5928)  Appter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5B Shielding of structures, bonding inside structures and earthing (fourth revision of IS 732)  DOC.ETD 20(5929)  Appter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5C Requirements of surge protective devices (fourth revision of IS 732)  Appter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5D Protection of SIS 732)  DOC.ETD 20(5930)  Appter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5D Protection against lightning, Sub section 5E Application guide (fourth revision of IS 732)  Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 1 Selection and erection of electrical equipment - common rules (fourth revision of IS 732)  Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 1 Selection and erection of electrical equipment according to environment (fourth revision of IS 732)	3	DOC.ETD 20(5920)	Section 2 Protection against thermal effects ( (fourth
Section 4 Protection against voltage disturbances and electromagnetic distrubances (fourth revision of IS 732)  6 DOC.ETD 20(5924) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 6 Protection against lightning electromagnetic impulse (fourth revision of IS 732)  7 DOC.ETD 20(5925) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 7 Protection of sturctures against lightning (fourth revision of IS 732)  8 DOC.ETD 20(5927) Chapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5A General principles (fourth revision of IS 732)  9 DOC.ETD 20(5928) hapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5B Shielding of structures, bonding inside structures and earthing (fourth revision of IS 732)  10 DOC.ETD 20(5929) hapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5C Requirements of surge protective devices (fourth revision of IS 732)  11 DOC.ETD 20(5930) hapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5D Protection of equipment in exjisting structures (fourth revision of IS 732)  12 DOC.ETD 20(5931) hapter 2 of IS 732 Chapter 2 Protection for safety, Section 5 Protection against lightning, Sub section 5E Application guide (fourth revision of IS 732)  13 DOC.ETD 20(5932) Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 1 Selection and erection of electrical equipment - common rules (fourth revision of IS 732)  14 DOC.ETD 20(5933) Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 1 Selection and erection of electrical equipment according to environment (fourth revision of IS 732)  15 DOC.ETD 20(5934) Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 1 Selection and erection of electrical equipment 2 Selection and erection of electrical equipment 2 Selection and erection of electrical equipment 3 Electrical	4	DOC.ETD 20(5921)	Section 3 Protection against overcurrent ( (fourth
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Section 5 Protection against lightning, Sub section 5E Application guide (fourth revision of IS 732)  13 DOC.ETD 20(5932) Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 1 Selection and erection of electrical equipment - common rules (fourth revision of IS 732)  14 DOC.ETD 20(5933) Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 1A Selection and erection of electrical equipment according to enviornment (fourth revision of IS 732)  15 DOC.ETD 20(5934) Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 2 Selection and erection of electrical equipment - Wiring system (fourth revision	11	DOC.ETD 20(5930)	Section 5 Protection against lightning, Sub section 5D Protection of equipment in exjisting structures
of buildings, Section 1 Selection and erection of electrical equipment - common rules (fourth revision of IS 732)  14 DOC.ETD 20(5933) Chapter 3 Grapter 3 Electrical installations of buildings, Section 1A Selection and erection of electrical equipment according to enviornment (fourth revision of IS 732)  15 DOC.ETD 20(5934) Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 2 Selection and erection of electrical equipment - Wiring system (fourth revision	12	DOC.ETD 20(5931)	Section 5 Protection against lightning, Sub section
of buildings, Section 1A Selection and erection of electrical equipment according to enviornment (fourth revision of IS 732)  DOC.ETD 20(5934)  Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 2 Selection and erection of electrical equipment - Wiring system (fourth revision	13	DOC.ETD 20(5932)	of buildings, Section 1 Selection and erection of electrical equipment - common rules (fourth revision
of buildings, Section 2 Selection and erection of electrical equipment - Wiring system (fourth revision	14	DOC.ETD 20(5933)	of buildings, Section 1A Selection and erection of electrical equipment according to enviornment (fourth
	15	DOC.ETD 20(5934)	of buildings, Section 2 Selection and erection of electrical equipment - Wiring system (fourth revision

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

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16	DOC.ETD 20(5935)	Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 3 Selection and erection of electrical equipment - isolaion, switching and control (fourth revision of IS 732)
17	DOC.ETD 20(5936)	Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 4 Selection and erection of electrical equipment - Earthing arrangement, protection conductors and protective bonding conductors (fourth revision of IS 732)
18	DOC.ETD 20(5937)	Chapter 3 of IS 732 Chapter 3 Electrical installations of buildings, Section 5 Selection and erection of electrical equipment - other equipments (fourth revision of IS 732)
19	DOC.ETD 20(5938)	Chapter 4 of IS 732 Chapter 4 Electrical installations of buildings, Section 1 Verification - initial verfication (fourth revision of IS 732)
20	DOC.ETD 20(5939)	Chapter 4 of IS 732 Chapter 4 Electrical installations of buildings, Section 2 Alternations and additions to an installation (fourth revision of IS 732)
21	DOC.ETD 20(5940)	Chapter 4 of IS 732 Chapter 4 Electrical installations of buildings, Section 3 Certification and reporting (fourth revision of IS 732)
22	DOC.ETD 20(5945)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 1 (fourth revision of IS 732)
23	DOC.ETD 20(5946)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 2 Swimming pools and other basins (fourth revision of IS 732)
24	DOC.ETD 20(5947)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 3 Rooms and cabins containing sauna heaters (fourth revision of IS 732)
25	DOC.ETD 20(5948)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 4 Constructrion and demolition site installations (fourth revision of IS 732)
26	DOC.ETD 20(5949)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 5 Agricultureal and horticultural promises (fourth revision of IS 732)
27	DOC.ETD 20(5950)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 6 Conducting locations with restricted movement (fourth revision of IS 732)
28	DOC.ETD 20(5951)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 7 Earthing requirements for the installation of data processing equipment (fourth revision of IS 732)

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| INDICATES EQUIVALENT STANDARDS

29	DOC.ETD 20(5952)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 8 electrical installations in caravans parks and caravans (fourth revision of IS 732)
30	DOC.ETD 20(5953)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 9 Marubas abd okeasyre craft (fourth revision of IS 732)
31	DOC.ETD 20(5954)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 10 Medical locations (fourth revision of IS 732)
32	DOC.ETD 20(5955)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 12 Solar photovoltaic (PV) power supply systems (fourth revision of IS 732)
33	DOC.ETD 20(5956)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 13 Furnitures (fourth revision of IS 732)
34	DOC.ETD 20(5957)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 14 External lightning installations (fourth revision of IS 732)
35	DOC.ETD 20(5958)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 15 Extravoltage lightning installations (fourth revision of IS 732)
36	DOC.ETD 20(5959)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 17 Mobile or transportable units (fourth revision of IS 732)
37	DOC.ETD 20(5960)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 40 Temporary electrical installations for structures, amustement devices and booths at fairgrounds, amusement parks and circuses (fourth revision of IS 732)
38	DOC.ETD 20(5961)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 21 Highway power supplies and street furniture (fourth revision of IS 732)
39	DOC.ETD 20(5962)	Chapter 5 of IS 732 Chapter 5 Requirements for special installations or locations, Section 22 Earthing requirments for the installation of equipment having high earth leakage currents (fourth revision of IS 732)
40	DOC.ETD 20(3586)	Electrical installations in ships: Part 2 System design, section 1 General [first revision of IS 10242 (Part 2/Sec 1)]
41	DOC.ETD 20(3674)	Electrical installations in ships :Part 5 Special features, section 5 mobile offshore drilling units

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# DRAFT STANDARDS APPROVED FOR WIDE CIRCULATION

1	DOC.ETD 20(5748)	Low voltage electrical installations- Part 1 Fundamental, Princiles, Assessment of General Characteristics, Definitions (IEC 60364-1)
2	DOC.ETD 20(5750)	Low voltage electrical installations- Part 5-52 Selection and Erection of Electrical Equipment - Wiring Systems (IEC 60364-5-52)
3	DOC.ETD 20(5751)	Low voltage electrical installations- Part 6-61 Verification - Initial Verification (IEC 60364-6-61)

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

## ETD 21 ELECTRIC WELDING EQUIPMENT

**SCOPE -** To prepare standards on the construction, performance, testing and safety requirements for electric welding equipment and accessories for both arc and resistance type

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STANI	DARDS PUBLISHED			
1	IS 1851:1997   ISO 700(1982)	Single Operator type arc welding transformers (third revision)	Sep 2007	ı
2	IS 2635:1997	dc electric welding generators (third revision)	Sep 2007	
3	IS 2641:1989	Electrical welding accessories (first revision)	Jun 2005	1
4	IS 4559:1993   ISO 700(1982)	Single operator rectifier type dc arc welding power source (second revision)	Mar 2004	
5	IS 4804(Part 1):1968	Resistance welding equipment: Part 1 Single phase transformers	Jun 2005	ı
6	IS 4804(Part 2):1968	Resistance welding equipment: Part 2 Single phase rocker-arm spot welding machines	Jun 2005	5 1
7	IS 4804(Part 3):1969	Resistance welding equipment: Part 3 Single phase spot and projection welding machines	Jun 2005	5 1
8	IS 4804(Part 4):1973	Resistance welding equipment: Part 4 Single phase stationary, press type roll-spot and seam welding machines	Jun 2005	1
9	IS 6008:1989   IEC 700(1982)	Single operator ac/dc arc welding power source (first revision)	Mar 2004	
10	IS 7931(Part 1):1975	Automatic and semi-automatic welding equipment with self-adjusting arcs (MIG/MAG processes): Part 1 dc welding generator power source	Mar 2004	
11	IS 7931(Part 2):1975	Automatic and semi-automatic welding equipment with self-adjusting arcs (MIG/MAG Processes): Part 2 Transformer rectifier power source	Mar 2004	. 1
12	IS 7931(Part 3):1975	Automatic and semi-automatic welding equipment with self-adjusting arcs (MIG/MAG Processes): Part 3 Welding gun and ancillary equipment	Mar 2004	. 1
13	IS 8804:1993   IEC 501(1975)	Plugs, sockets and terminal arrangements and welding cable connectors for manual welding equipment (first revision)	Mar 2004	
14	IS 9604:1994	Tungsten-inert gas (TIG) welding equipment	Mar 2004	,
15	IS 13339:1992	Multi-operator type arc welding transformers	Sep 2007	

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#### ETD 22 ELECTRICAL APPARATUS FOR EXPLOSIVE ATMOSPHERES

**SCOPE -** To prepare guidelines and requirements for electrical apparatus for use where there is a hazard due to the possible presence of ignitable gas, vapour liquid particles or dust in the atmosphere.

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STANI	DARDS PUBLISHED			
1	IS 2148:2004 / IS/IEC 60079-1(2001)	Electrical apparatus for explosive gas atmospheres - Flameproof enclosures "d" (third revision)		1
2	IS 2206(Part 1):1984	Flameproof electric lighting fittings: Part 1 Well-glass and bulkhead types (first revision)	May 2005	1
3	IS 2206(Part 2):1976	Flameproof electric lighting fittings: Part 2 Fittings using glass tubes	Mar 2003	1
4	IS 2206(Part 3):1989	Flameproof electric lighting fittings: Part 3 Fittings using plastic tubes (Group I only)	May 2005	
5	IS 2206(Part 4):1987	Flameproof electric lighting fittings: Part 4 Portable flameproof hand lamps	Mar 2003	
6	IS 4051:1967	Code of practice for installation and maintenance of electrical equipment in mines	Oct 2001	
7	* IS 5571:2000	Guide for selection of electrical equipment for hazardous areas (first revision)	Feb 2006	
8	* IS 5572:1994   IEC 60079-10(1986)	Classification of hazardous areas (other than mines) having flammable gases and vapours for electrical installation (second revision)	Aug 2004	
9	IS 5679:1986	Miners' cap lamp assemblies (incorporating lead acid type batteries) (first revision)	Oct 2006	1
10	* IS 5780:2002 / IEC 60079-11(1999)	Electrical apparatus for explosive gas atmospheres - Intrinsic safety 'l' (second revision)		1
11	* IS 6381:2004 / IEC 60079-7(2001)	Electrical apparatus for explosive gas atmospheres - Increased safety "e" (first revision)		1
12	* IS 7389:2004 / IEC 60079-2(2001)	Pressurized enclosures of electrical equipment for use in hazardous area (second revision)		1
13	IS 7693:2004 / IEC 60079-6(1995)	Electrical apparatus for explosive gas atmospheres - Oil immersion "o" (first revision)		1
14	* IS 7724:2004 / IEC 60079-5(1997)	Electrical Apparatus for explosive gas atmospheres - Powder filling 'q' (first revision)		1
15	IS 7820:2004 / IEC 60079-4(1975)	Electrical apparatus for explosive gas amospheres - Method of test for ignition temperatures (first revision)		
16	IS 9559:1980	Guide for selection of electrical and electronic equipment for coal mines	Oct 2006	

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17	IS 9570:1980   IEC 60079-12 (1978)	Classification of flammable gases or vapours with air according to their maximum experimental safe gaps and minimum igniting currents	Oct 2006	
18	IS 9628:1980	Three-phase induction motors with type of protection 'n'	Mar 2004	
19	IS 9735:2003 / IEC 60079-1-1(2002)	Electrical apparatus for explosive gas atmospheres - Flameproof enclosures "d" Method of test for ascertainment of maximum experimental safe gap (first revision)		1
20	IS 9836:1981	Exploders	Oct 2006	
21	IS 11064:1984   IEC 60079-13(1982)	Guide for construction and use of rooms or buildings protected by pressurization for installation of electrical apparatus for explosive gas atmospheres	Oct 2006	
22	IS 12315(Part 1):1988   IEC 61241-1	Methods of determining the minimum ignition temperature of dusts: Part 1 Dust layer on a heated surface at a constant temperature	Apr 2003	
23	IS 12315(Part 2):1988   IEC 61241-2-1	Methods of determining the minimum ignition temperature of dusts: Part 2 Dust cloud in a furnance at a constant temperature	Apr 2003	
24	IS 13346:2004 / IEC 60079-0(2000)	Electrical apparatus for explosive gas atmospheres - General requirements(first revision)		2
25	IS 13408(Part 1):1992	Code of practice for the selection, installation & maintenance of electrical apparatus for use in potentially explosive atmospheres (other than mining application or explosive processing manufacture): Part 1 General recommendations	Mar 2003	1
26	IS 14154(Part 1):1996	Electrical apparatus with protection by enclosure for use in the presence of combustible dusts: Part 1 Specification for apparatus	Oct 2006	
27	IS 14154(Part 2):1997	Electrical apparatus with protection by enclosure for use in presence of combustible dust: Part 2 Guide to selection, installation and maintenance	Mar 2003	
28	IS 14774(Part 1):2000   IEC 62086-1	Resistance trace heating in potenentially explosive atmospheres Part 1 General and testing requirements	Apr 2005	
29	IS 14774(Part 2):2000   IEC 62086-2	Resistance trace heating in potentially explosive atmospheres: Part 2 informative application guide for desing, installation and maintenance	Apr 2005	
30	IS 15142:2002	Guide to the use of electrical apparatus for potentially explosive atmospheres in the presence of combustible dusts		
31	IS 60079:2000 / IS/IEC 60079-0(2004)	Elecrical apparatus for explosive gas atmospheres: Part 0 General requirements (superseding IS 13346)		
32	IS 60079(Part 1):2000 / IS/IEC 60079-1(2007)	Explosive atmospheres: Part 1 Equipment protection by flameproof enclosures "d" (superseding IS 2148:2004)		

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<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

33	IS 60079(Part 15):2000 / IS/IEC60079-15(2005)	Electrical apparatus for explosive gas atmospheres: Part 15 Construction, test and marking of type of protection "n" electrical apparatus (superseding IS 8289)
34	IS 60079(Part 18):2004 / IS/IEC 60079-18:2004	Electrical apparatus for explosive gas atmospheres : Part 18 Construcion, test and marking of type of protection encapsulation "m" electrical apparatus
35	IS 60079(Part 25):2000 / IS/IEC60079-25(2003)	Electrical apparatus for explosive gas atmospheres : Part 25 Intrinsically safe systems
FINA	LISED DRAFTS UNDER PRINT	
1	DOC.ETD 22(5725) / IEC 60079-16 (1990)	Electrical apparatus for explosive gas atmospheres : Part 16 Artificial ventilation for the protection of analyzer(s) houses
2	DOC.ETD 22(5726) / IEC 60079-17 (2002)	Electrical apparatus for explosive gas atmospheres: Part 17 Inspection and maintenance of electrical installations in hazardous areas (other than mines) (superseding IS 13408:1992)
3	DOC.ETD 22(5727) / IEC 60079-19 (2006)	Electrical apparatus for explosive gas atmospheres: Part 19 Repair and overhaul for apparatus used in explosive atmospheres (other than mines or explosives) (superseding IS 13408:1992)
4	DOC.ETD 22(5728) / IEC 60079-20 (1996)	Electrical apparatus for explosive gas atmospheres : Part 20 Data for flammable gases and vapours relating to the use of electrical apparatus
5	DOC.ETD 22(5774)	Guide for selection and installation of electrical equipment for hazardous areas (third revision of IS 5571)
6	DOC.ETD 22(5887) / IEC 60079-7 (2006)	Explosive atmospheres: Part 7 Equipment protection by increased safety "e" (superseding IS 6381:2004)
7	DOC.ETD 22(5888) / IEC 60079-11 (2006)	Explosive atmospheres: Part 11 Equipment protection by intrinsic safety "i" (superseding IS 5780:2002)
8	DOC.ETD 22(5922)	Classification of hazardous areas (other than mines) having flammable gases and vapours for electrical installation (third revision of IS 5572)
DRA	FT STANDARDS FINALIZED BUT	NOT YET UNDER PRINT
1	DOC.ETD 22(5885) / IEC 60079-2 (2007)	Explosive atmospheres: Part 2 Equipment protection by pressurized enclosure "p" (superseding IS 7389:2004)
2	DOC.ETD 22(5886) / IEC 60079-5 (2007)	Explosive atmospheres: Part 5 Equipment protection by powder filling "q" (superseding IS 7724:2004)
3	DOC.ETD 22(5894) / IEC 61779-1 (1998)	Electrical apparatus for the detection and measurement of flammable gases: Part 1 General requirements and test methods

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

4	DOC.ETD 22(5895) / IEC 61779-2 (1998)	Electrical apparatus for the detection and measurement of flammable gases: Part 2 Performance requirements for group I apparatus indicating a volume fraction up to 5 percent methane in air
5	DOC.ETD 22(5896) / IEC 61779-3 (1998)	Electrical apparatus for the detection and measurement of flammable gases: Part 3 Performance requirements for group I apparatus indicating a volume fraction up to 100 percent methane in air
6	DOC.ETD 22(5897) / IEC 61779-4 (1998)	Electrical apparatus for the ddetection and measurement of flammable gases: Part 4 Performance requirements for group II apparatus indicating a volume fraction up to 100 percent lower explosive limit
DRA	FT STANDARDS ISSUED IN WIDE	CIRCULATION
1	DOC.ETD 22(5898) / IEC 61779-5 (1998)	Electrical apparatus for the detection and measurement of flammable gases: Part 5 Performance requirements for group II apparatus indicating a volume fraction up to 100 percent gas
2	DOC.ETD 22(5899) / IEC 61779-6 (1999)	Electrical apparatus for the detection and measurement of flammable gases: Part 6 Guide for the selection, installation, use and maintenance of apparatus for the detection and measurement of flammable gases
3	DOC.ETD 22(5900) / IEC 61241-1 (2004)	Electrical apparatus for use in the presence of combustible dust: Part 1: Protection by enclosures "tD"
4	DOC.ETD 22(5901) / IEC 61241-2-1(1994)	Electrical apparatus for use in the presence of combustible dust: Part 2 Test methods, Section 1 Method for etermining the electrical resistivity of dust in layers
5	DOC.ETD 22(5902) / IEC 61241-2-3 (1994)	Electrical apparatus for use in the presence of combustible dust: Part 2 Test methods, Section 3 Method for determining minimum ignition energy of dust/air mixtures
6	DOC.ETD 22(5903) / IEC 61241-4 (2004)	Electrical apparatus for use in the presence of combustible dust: Part 4 Type of protection "pD"
7	DOC.ETD 22(5904) / IEC 61241-10 (2004)	Electrical apparatus for use in the presence of combustible dust: Part 10 : Classification of areas where combustible dusts are or may be present
8	DOC.ETD 22(5905) / EC 61241-11 (2005)	Electrical apparatus for use in the presence of combustible dust: Part 11 Protection by intrinsic safety "iD"
9	DOC.ETD 22(5906) / IEC 61241-14 (2004)	Electrical apparatus for use in the presence of combustible dust: Part 14 Selection and installation
10	DOC.ETD 22(5907) / IEC 61241-17 (2005)	Electrical apparatus for use in the presence of combustible dust: Part 17: Inspection and maintenance of electrical installations in hazardous areas (other than mines)
* IND	ICATES STANDARDS UNDER REVISION	** INDICATES STANDARDS TO BE REVISED

<sup>/</sup> INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

11	DOC.ETD 22(5908) / IEC 61241-18 (2004)	Electrical Apparatus for Use in the Presence of Combustible Dust: Part 18 Protection by Encapsulation "mD"
12	DOC.ETD 22(5909) / IEC 61241-0 (2004)	Electrical apparatus for use in the presence of combustible dust: Part 0 General requirements
13	DOC.ETD 22(5912) / IEC 60079-6 (2007)	Explosive atmospheres: Part 6 Equipment protection by oil immersion "o" (superseding IS 7693:2004)

## ETD 23 ELECTRIC LAMPS AND THEIR AUXILIARIES

**SCOPE -** To prepare standards for all types of electric lamps, caps and their auxiliaries (luminaires are excluded)

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STANI	DARDS PUBLISHED			
1	IS 418:2004   IEC 60064(1993)	Tungsten filament lamps for domestic and similar general lighting purposes (fourth revision)		2
2	IS 897:1982	Tungsten filament electric lamps for railway rolling stock (second revision)	Mar 2005	3
3	IS 1534(Part 1):1977   IEC 82(1973)	Ballasts for fluorescent lamps: Part 1 For switch start circuits (second revision)	Jul 2006	5
4	IS 1569:1976   IEC 566	Capacitors for use in tubular fluorescent high pressure mercury and low pressure sodium vapour discharge lamp circuits (first revision)	Jul 2006	1
5	IS 1901:1978	Visual indicator lamps (first revision)	Oct 2007	1
6	IS 2215:2006   IEC 60155 (1993)	Starters for fluorescent lamps (third revision)		
7	IS 2261:1975	Lamps for flashlights (first revision)	Dec 2005	1
8	IS 2262:1963	Transformers for high voltage luminous discharge tubes	Jul 2006	
9	IS 2407:1963	Photometric integrators	Oct 2007	
10	IS 2418(Part 1):1977   IEC 81(1974)	Tubular fluorescent lamps for general lighting service: Part 1 Requirements and tests (first revision)	Dec 2005	5
11	IS 2418(Part 2):1977   IEC 81(1974)	Tubular fluorescent lamps for general lighting service : Part 2 Standard lamp data sheets (first revision)	Jul 2006	3
12	IS 2418(Part 3):1977   IEC 61-1(1969)	Tubular fluorescent lamps for general lighting service : Part 3 Dimensions of G-5and G-13 bi-pin caps (first revision)	Jul 2006	1
13	IS 2418(Part 4):1977   IEC 61-3(1969)	Tubular fluorescent lamps for general lighting service: Part 4 Go and no-go gauges for G-5 and G-13 bi-pin caps (first revision)	Oct 2007	
14	IS 2592:1980	Lamps for lighting on board ships (first revision)	Oct 2007	
15	IS 2596:2004	Bulbs (lamps) for miners cap lamps (second revision)		
16	IS 6616:1982   IEC 262(1969)	Ballasts for high pressure mercury vapour lamps (first revision)	Jul 2006	1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

17	IS 6701:1985   IEC 61-1(1969)	Tungsten filament miscellaneous electric lamps (first revision)	Jul 2006	2
18	IS 7013:1981	Radio dial lamps (first revision)	Oct 2007	
19	IS 7027:1984   IEC 452(1982)	Transistorized ballasts for fluorescent lamps (first revision)	Jul 2006	
20	IS 8685:1977   IEC 60434 (1973)	Aircraft lamps	Jul 2006	
21	IS 8901:1978	Lamps for aerodrome lighting fittings	Jul 2006	1
22	IS 8913:1978   IEC 360(1971)	Methods of measurement of lamp cap temperature rise	Oct 2007	
23	IS 9206:1979   IEC 60061-1(1972)	Dimensions of caps for tungsten filament general service electric lamps	Dec 2005	2
24	IS 9589:1980	Electric lamps for railway signalling	Oct 2007	
25	IS 9900(Part 1):1981   IEC 188(1974)	High pressure mercury vapour lamps: Part 1 Requirements and test (Superseding IS:2183 and IS:7023)	Oct 2007	4
26	IS 9900(Part 2):1981   IEC 188(1974)	High pressure mercury vapour lamps: Part 2 Standard lamp data sheets (superseding IS: 2183 and IS: 7023)	Oct 2007	1
27	IS 9900(Part 3):1981   IEC 188(1974)	High pressure mercury vapour lamps: Part 3 Dimensions of lamp caps (superseding IS:2183 and IS:7023)	Oct 2007	
28	IS 9900(Part 4):1981   IEC 61-3(1969)	High pressure mercury vapour lamps: Part 4 Go and no-go gauges of lamp caps (superseding IS:2183 and IS:7023)	Oct 2007	
29	IS 9974(Part 1):1981   IEC 662(1980)	High pressure sodium vapour lamps : Part 1 General requirements and tests	Oct 2007	4
30	IS 9974(Part 2):1981   IEC 662(1980)	High pressure sodium vapour lamps : Part 2 Standard lamp data sheets	Oct 2007	2
31	IS 11980:1987	Lamp (bulb) cycle dynamo	Oct 2007	
32	IS 12449(Part 1):1988   IEC 60926	Starting devices (other than glow starters): Part 1 General and safety requirements	Jun 2003	1
33	IS 12449(Part 2):1988   IEC 60927	Starting devices (other than glow starters): Part 2 Performance requirements	Jun 2003	1
34	IS 12897:2001	Filaments for general service lamps-Guide (first revision)	Mar 2006	1
35	IS 12948:1990   IEC 60357(1982)	Tungsten halogen lamps (non-vehicle)	Jul 2006	
36	IS 13021(Part 1):1991   IEC 60928(1990)	AC supplied electronic ballasts for tubular florescent lamps: Part 1 General and safety requirements	Dec 2005	1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

37	IS 13021(Part 2):1991 IEC 60929(1990)	AC supplied electronic ballasts for tubular florescent lamps: Part 2 Performance requirements	Dec 2005	2
38	IS 14897:2000 IEC 60887(1988)	Glass bulb designation system for lamps-Guide	Dec 2005	
39	IS 15111(Part 1):2002 IEC 60968(1988)	Self ballasted lamps for general lighting services : Part 1 Safety requirements	Jan 2007	2
40	IS 15111(Part 2):2002 IEC 60969(1988)	Self ballasted lamps for general lighting services : Part 2 Performance requirements	Feb 2007	5
41	IS 15518(Part 1):2004 IEC 60432-1 (1999)	Safety requirements for incandescent lamps: Part 1 Tungsten filament lamps for domestic and similar general lighting purposes		1
42	IS 15687(Part 1):2006 IEC 61199 (1999)	Single-capped fluorescent lamps: Part 1 Safety requirements		
DRAFT	STANDARDS FINALIZED BUT I	NOT YET UNDER PRINT		
1	DOC.ETD 23(5717)	Safety of lamp controlgear: Part 1 General requirements		
2	DOC.ETD 23(5718)	Safety of lamp controlgear: Part 2 Particular requirements, Sec 1 Starting devices (other than glow starters		
3	DOC.ETD 23(5719)	Safety of lamp controlgear: Part 2 Particular requirements, Sec 3 ac supplied electronic ballasts for fluorescent lamps		
4	DOC.ETD 23(5720)	Safety of lamp controlgear: Part 2 Particular requirements, Sec 8 Ballasts for fluorescent lamps		
5	DOC.ETD 23(5721)	Safety of lamp controlgear: Part 2 Particular requirements, Sec 9 Ballasts for discharge lamps (excluding fluorescent lamps		
6	DOC.ETD 23(5880)	Capacitor for tubular fluorescent lamps: Part 1 Safety requirements		
7	DOC.ETD 23(5881)	Capacitor for tubular fluorescent lamps: Part 2 Performance requirements		
8	DOC.ETD 23(5926)	Ballasts for discharge lamps (excluding tubular fluorescent lamps): Part 2 Performance requirements Section 0 General requirements		
9	DOC.ETD 23(5943)	Ballasts for tubular fluorescent lamps - Performance requirements		
10	DOC.ETD 23(5963)	ac supplied electronic ballasts for tubular fluorescent lamps - Performance requirements		
DRAFT	STANDARDS ISSUED IN WIDE	CIRCULATION		
1	DOC.ETD 23(5842)	Single-capped fluorescent lamps: Part 2 Performance requirements		
2	DOC.ETD 23(5965)	Auxiliaries for lamps - Starting devices (other than glow starters) - Performance requirements		

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

## ETD 24 ILLUMINATION ENGINEERING AND LUMINAIRES

**SCOPE -** To prepare codes of practice for interior and exterior lighting and standards for luminaires (including luminaires for use in hazardous area, aviation lighting, emergency lighting etc.

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STAN	DARDS PUBLISHED			
1	IS 1944(Part 5):1981	Code of practice for lighting of public thoroughfare: Part 5 Lighting for grade separated junctions, bridges and elevated roads (Group D)	Mar 2008	3
2	IS 1944(Part 6):1981	Code of practice for lighting of public thoroughfare: Part 6 Lighting for towns and city centres and areas of civic importance (Group E)	Mar 2008	3
3	IS 1944(Part 7):1981	Code of practice for lighting of public thoroughfare: Part 7 Lighting for roadswith special requirements (Group F)	Mar 2008	3
4	IS 1944(Part 1 & 2):1970	Code of practice for lighting of public thoroughfare: Parts 1 and 2 For main and secondary roads (Group A and B) (first revision) (Parts 1 and 2 in one volume)	Mar 2008	3 2
5	IS 2672:1966	Code of practice for library lighting	May 2005	5
6	IS 3287:1965	Industrial lighting fittings with plastic reflectors	May 2005	5
7	IS 3528:1966	Waterproof electric lighting fittings	May 2005	5
8	IS 3553:1966	Watertight electric lighting fittings	May 2005	5
9	IS 3646(Part 1):1992	Code of practice for interior illumination: Part 1 General requirements and recommendations for working interiors (first revision)	Mar 2008	3
10	IS 3646(Part 2):1966	Code of practice for interior illumination: Part 2 Schedule of illumination and glare index	Mar 2008	3
11	IS 3646(Part 3):1968	Code of practice for interior illumination: Part 3 Calculation of coefficients of utilization by the BZ method	Mar 2008	3
12	IS 4012:1967	Dust-proof electric lighting fittings	May 2005	5
13	IS 4013:1967	Dust-tight electric lighting fittings	May 2005	i i
14	IS 4347:1967	Code of practice for hospital lighting	May 2005	5
15	IS 5077:1969	Decorative lighting outfits	May 2005	5 1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

16	IS 6665:1972	Code of pratice for industrial lighting	May 2005	
17	IS 7537:1974	Road traffic signals	Mar 2008	
18	IS 7569:1987	Cast acrylic sheets for use in luminaires (first revision)	Mar 2008	
19	IS 7678:1975	Method of photometric testing of incandescent type luminaires for general lighting service	Mar 2008	
20	IS 7785(Part 1):1975	Elevated type aerodrome lighting fittings: Part 1 General requirements	Mar 2008	
21	IS 7785(Part 2):1976	Elevated type aerodrome lighting fittings: Part 2 Fixed focus high intensity bi-directional runway edge lighting fittings	Mar 2008	
22	IS 7785(Part 3):1976	Elevated type aerodrome lighting fittings: Part 3 Low intensity runway edge lighting fittings	Mar 2008	
23	IS 7785(Part 4/Sec 1):1981	Elevated type aerodrome lighting fittings: Part 4 Angle of approach lights, Section 1 Visual approach slope indicators	Mar 2008	
24	IS 7785(Part 5/Sec 1):1981	Elevated type aerodrome lighting fittings: Part 5 Approach lighting fittings, Section 1 High intensity elevated approach lighting fittings	Mar 2008	
25	IS 7785(Part 6/Sec 1):1981	Elevated type aerodrome lighting fittings: Part 6 Taxiway lights, Section 1 Low intensity omni-directional elevated taxiway lighting fittings	Mar 2008	
26	IS 8030:1976   IEC 162(1972)	Luminaires for hospitals	Mar 2008	
27	IS 9583:1981   IEC 598-2-22(1980)	Emergency lighting units	Mar 2008	
28	* IS 10322(Part 1):1982   IEC 598-1(1979)	Luminaires: Part 1 General requirements	May 2005	
29	IS 10322(Part 2):1982   IEC 598-1(1979)	Luminaires: Part 2 Constructional requirements	May 2005	
30	IS 10322(Part 3):1984	Luminaires:Part 3 Screw and screwless terminations (superseding IS:6585)	May 2005	
31	IS 10322(Part 4):1984   IEC 598-1(1979)	Luminaires: Part 4 Methods of tests	May 2005	
32	IS 10322(Part 5/Sec 1):1985   IEC 60598-2-1(1979)	Luminaires: Part 5 Particular requirements, Section 1 General purpose luminaires	May 2005	2
33	IS 10322(Part 5/Sec 2):1985   IEC 60598-2-2(1979)	Luminaires: Part 5 Particular requirements, Section 2 Recessed luminaires	May 2005	1
34	IS 10322(Part 5/Sec 3):1987   IEC 60598-2-3(1979)	Luminaires:Part 5 Particular requirements, Section 3 Luminaires for road and street lighting (superseding IS:2149)	May 2005	4

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

35	IS 10322(Part 5/Sec 4):1987   IEC 60598-2-4(1979)	Luminaires: Part 5 Particular requirements, Section 4 Portable general purpose luminaires	May 2005	1
36	IS 10322(Part 5/Sec 5):1987   IEC 60598-2-5	Luminaires: Part 5 Particular requirements, Section 5 Flood lights (superseding IS:1947)	May 2005	1
37	IS 10894:1984	Code of practice for lighting of educational institutions	May 2005	
38	IS 10947:1984	Code of practice for lighting for ports and harbours	May 2005	
39	IS 11071(Part 1):1984	Inset type aerodrome lighting fittings: Part 1 General requirements and tests	May 2005	
40	IS 11071(Part 2):1984	Inset type aerodrome lighting fittings: Part 2 Runway centre line lighting fittings	May 2005	
41	IS 11071(Part 3):1984	Inset type aerodrome lighting fittings: Part 3 Approach lighting fittings	May 2005	
42	IS 11071(Part 4):1984	Inset type aerodrome lighting fittings: Part 4 Touchdown zone lighting fittings	May 2005	
43	IS 11116:1984	Code of practice for lighting for airport aprons	May 2005	
44	IS 11472(Part 1):1985	Artificial day light for the assessment of colours: Part 1 Illuminant for colour matching and colour appraisal	Mar 2008	
45	IS 11472(Part 2):1985	Artificial day light for the assessment of colours: Part 2 Viewing conditions for graphic arts industry	Mar 2008	
46	IS 12290:1987	Isolating transformers for airport lighting	Mar 2008	
47	IS 12291:1987	Constant current regulators for airport systems	Mar 2008	
48	IS 12309(Part 1):1988	Code of practice for installation and maintenance of aerodrome lighting fittings: Part 1 Installation	Mar 2008	
49	IS 12309(Part 2):1988	Code of practice for installation and maintenance of aerodrome lighting fittings: Part 2 Maintenance	Mar 2008	
50	IS 13383(Part 1):1992	Methods of photometry of luminaires: Part 1 For use in interior lighting	May 2005	
51	IS 13383(Part 2):1992	Methods of photometry of luminaires: Part 2 For road and street lighting	Oct 2005	1
52	IS 13383(Part 3):1992	Methods of photometry of luminaires: Part 3 For flood lighting	May 2005	
DRAFT	STANDARDS FINALIZED BUT	NOT YET UNDER PRINT		
1	DOC.ETD 24(5442)	National lighting code: Part 1 General and common aspects, Section 2 Lighting vocabulary		
2	DOC.ETD 24(5443)	National lighting code: Part 2 Physics of light, Section 1 General principles		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

3	DOC.ETD 24(5444)	National lighting code: Part 2 Physics of light, Section 2 Vision
4	DOC.ETD 24(5445)	National lighting code: Part 2 Physics of light, Section 3 Colour
5	DOC.ETD 24(5446)	National lighting code: Part 3 Electric light and their accessories, Section 1 Electric light sources
6	DOC.ETD 24(5447)	National lighting code: Part 3 Electric light and their accessories, Section 2 Control-gear for light sources
7	DOC.ETD 24(5448)	National lighting code: Part 4 Luminaires, Section 1 Classification of luminaries
8	DOC.ETD 24(5449)	National lighting code: Part 4 Luminaires, Section 3 Photometric data
9	DOC.ETD 24(5450)	National lighting code: Part 5 Interior illumination, Section 2 Industrial lighting
10	DOC.ETD 24(5451)	National lighting code: Part 5 Interior illumination, Section 3 Office lighting
11	DOC.ETD 24(5452)	National lighting code: Part 5 Interior illumination, Section 4 Educational facilities lighting
12	DOC.ETD 24(5453)	National lighting code: Part 5 Interior illumination, Section 5 Hospital lighting
13	DOC.ETD 24(5454)	National lighting code: Part 5 Interior illumination, Section 6 Lighting for other public buildings
14	DOC.ETD 24(5455)	National lighting code: Part 6 Exterior illumination, Section 1 General features
15	DOC.ETD 24(5456)	National lighting code: Part 6 Exterior illumination, Section 2 Industrial lighting
16	DOC.ETD 24(5457)	National lighting code: Part 6 Exterior illumination, Section 3 Security lighting
17	DOC.ETD 24(5458)	National lighting code: Part 6 Exterior illumination, Section 4 Decorative lighting (flood, monument part and garden)
18	DOC.ETD 24(5459)	National lighting code: Part 6 Exterior illumination, Section 5 Lighting for utility areas (dock and harbour, railway marshalling yard, airport aprons and open areas
19	DOC.ETD 24(5460)	National lighting code: Part 6 Exterior illumination, Section 6 Sports lighting
20	DOC.ETD 24(5461)	National lighting code: Part 6 Exterior illumination, Section 7 Lighting for advertisements (hoarding, neon sign, moving display)
21	DOC.ETD 24(5462)	National lighting code: Part 7 Lighting for hazardous areas
22	DOC.ETD 24(5463)	National lighting code: Part 8 Road lighting

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

DOC.ETD 24(5464)  National lighting code: Part 9 Ensystems  DOC.ETD 24(5465)  National lighting code: Part 10 In lighting, Section 1 Mechanical	nstallation aspects for
lighting, Section 1 Mechanical	nstallation aspects for
05 D00 FTD 04/5400) N. H. J.	·
25 DOC.ETD 24(5466) National lighting code: Part 10 Ir lighting, Section 2 Electrical	
26 DOC.ETD 24(5467)  National lighting code: Part 10 Ir lighting, Section 3 Coordination disciplines	
27 DOC.ETD 24(5468) National lighting code: Part 11 D buildings	aylighting for
28 DOC.ETD 24(5469) National lighting code: Part 12 E	mergency lighting
29 DOC.ETD 24(5471) National lighting code: Part 14 L	ighting maintenance
30 DOC.ETD 24(5474) National lighting code: Part 5 Inte Section 1 General features	erior illumination,
31 DOC.ETD 24(5669) National lighting code: Part 4 Lu Sec 2 Construction and safety re	
32 DOC.ETD 24(5797) Luminaires: Part 1 General requ / IEC 60598-1(2003-10) [first revision of IS 10322 (Part 1	
DRAFT STANDARDS ISSUED IN WIDE CIRCULATION	
1 DOC.ETD 24(5994) Luminaires: Part 5 Particular red Sec 2 Recessed luminaires [first (Part 5/Sec 2)]	
2 DOC.ETD 24(6038) Luminaires: Part 5 Particular red Fixed general purpose luminaires 10322 (Part 5/Sec 1)]	
3 DOC.ETD 24(6039) Luminaires: Part 5 Particular red Sec 3 Luminaires for road and s [first revision of IS 10322 (Part 5/	treet lighting

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

## ETD 25 LIFTS AND ESCALATORS

**SCOPE -** To prepare standards and codes of practice for electrically operated lifts and escalators, including equipment and components

SI. No.	. IS Number/ DOC Number	Title	Reaffirm Date	Am
STAN	DARDS PUBLISHED			
1	IS 4591:1968	Code of practice for installation and maintenance of escalators	Feb 2007	,
2	IS 8216:1976	Guide for inspection of lift wire ropes	Feb 2007	•
3	IS 14665(Part 1):2000	Electric traction lifts:Part 1 Outline dimensions (superseeding IS 3534:1976)	Oct 2005	j
4	IS 14665(Part 2/Sec 1 & 2):2000	Electric traction lifts: Part 2 Code of prtactice for installation, operation and maintenance, Section 1 Passengers and goods lifts (Superseeding IS 1860:1980), Sction 2 Service lifts (superseeding IS 6620:1972)	May 2005	•
5	IS 14665(Part 3/Sec 1 & 2):2000	Electric traction lifts: Part 3 Safety rules, Section 1 Passenger and goods lifts (superseeding IS 4666:1980), Section 2 Service lifts (superseeding IS 6383:1971)	May 2005	<b>,</b>
6	IS 14665(Part 4/Sec 1-9):2001	Electric traction lifts: Part 4 Components, Section 1 Lift buffers (superseding IS 9803:1981), Section 2 Lift guide rails and guide shoes (superseding IS 10191:1982 and IS 11615:1986, Section 3 Lift car frame, car counterweight and suspension (superseding IS 11706:1986), Section 4 Lift safety gears and governors (superseding IS 9878:1981), Section 5 Lift retiring cam (superseding IS 10448:1983), Section 6 Lift doors, locking devices and contacts (superseding IS 7759:1975 and 11633:1986), Section 7 Lift machines and brakes (superseding IS 10913:1984), Section 8 Lift wire ropes, Section 9 Controller and operating devices	Jun 2006	5 1
7	IS 14665(Part 5):1999	Electric traction lifts:Part 5 Inspection manual	Mar 2004	ļ
8	IS 14671:1999	Code of practice for instalation and maintenance of hydraulic lifts	Mar 2004	ļ
9	IS 15259:2002	Installation and maintenance of home lifts - Code of practice		
10	IS 15330:2003	Code of practice for installation and maintenance of lifts for handicapped persons		
11	IS 15785:2007	Code of practice for installation and maintenance of lifts without conventional machine rooms		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

# DRAFT STANDARDS ISSUED IN WIDE CIRCULATION

1 DOC.ETD 25(5975)

Code of practice for installation and maintenance of escalators and passanger conveyors

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

#### ETD 28 SOLAR PHOTOVOLTAIC ENERGY SYSTEMS

**SCOPE -** To prepare standards for systems of photovoltaic conversion of solar energy into electrical energy and for all the elements in the entire photovoltaic energy systems

In this context, the concept photovoltaic energy systems includes the entire field from light input to solar cell and including the interface with the electrical system(s) to which energy is supplied

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STANI	DARDS PUBLISHED			
1	IS 12762(Part 1):1989 / IEC 60904-1(1987)	Photovoltaic devices: Part 1 Measurement of photovoltaic current voltage characteristics	Jan 200	5
2	IS 12762(Part 2):1993 / IEC 60904-2(1989)	Photovotaic devices: Part 2 Requirements for reference solar cells	Apr 2004	1
3	IS 12762(Part 3):1998 / IEC 60904-3(1989)	Photovoltaic devices Part 3 measurement principles for terrestrial (PV) solar devices with reference spectral irradiance data	Apr 2004	1
4	IS 12763:1989 / IEC 60891(1987)	Procedures for temperature and irradiance corrections to measured I-V characteristics of crystaline silicon photovoltaic devices	Jan 200	5
5	IS 12834:1989	Solar photovoltaic energy systems-Terminology	Jan 200	5
6	IS 14153:1994	Guide for general description of photovoltaic (PV) power generating systems	Apr 2004	1
7	IS 14244:1995 / IEC 61194(1992)	Characteristic parameters of stand alone photovoltaic (PV) systems	Jan 200	5
8	IS 14286:1995   IEC 61215(1993)	Qualification test procedures for crystaline silicon photovoltaic modules	Jan 200	5
FINAL	ISED DRAFTS UNDER PRINT	•		
1	DOC.ETD 28(6014)	Photovoltaic devices: Part 1 Measurement of photovoltaic current-voltage characteristics [first revision of IS 12762 (Part 1)] (IEC 60904-1:2006)		
2	DOC.ETD 28(6015)	Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualiication and type approval (first revision of IS 14286) (IEC 61215:2005)		
3	DOC.ETD 28(6016)	Solar photovoltaic energy systems - Terms and symbols (first revision of IS 12834) (IEC/TS 61836:1997)		
4	DOC.ETD 28(6017)	Photovoltaic devices: Part 5 Determination of the equivalent cell temperature (ECT) of photovoltaic (PV) devices by the open-circuit voltage method (IEC 60904-5:1993)		
5	DOC.ETD 28(6019)	Photovoltaic devices: Part 8 Measurement of spectral response of a photovoltaic (PV) device (IEC 60904-8:1998)		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

6	DOC.ETD 28(6020)	Photovoltaic devices: Part 9 Solar simulator performance requirments (IEC 60904-9:2007)
7	DOC.ETD 28(6021)	Photovoltaic devices: Part 10 Methods of linearity measurment (IEC 60904-10:1998)
8	DOC.ETD 28(6022)	Overvoltage protection for photovoltaic (PV) power generating systems - Guide (IEC 61173:1992)
9	DOC.ETD 28(6024)	Terrestrial photovoltaic (PV) power generating systems - General and guide (first revision of IS 14153) (IEC 61277:1995)
10	DOC.ETD 28(6026)	Photovoltaic systems - Power conditioners - Procedure for measuring efficiency (IEC 61683:1999)
11	DOC.ETD 28(6027)	Salt mist corrosion testing of photovoltaic (PV) modules (IEC 61701:1995)
12	DOC.ETD 28(6029)	Photovoltaic system performance monitoring - Guidelines for measurment, data exchange and analysis (IEC 61724:1998)
13	DOC.ETD 28(6030)	Analytical expression for daily solar profiles (IEC 61725:1997)
14	DOC.ETD 28(6032)	Photovoltaic (PV) module safety qualification: Part 1 Requirments for construction (IEC 61730-1:2004)
15	DOC.ETD 28(6033)	Photovoltaic (PV) module safety qualification: Part 2 Requirments for testing (IEC 61730-2:2004)
16	DOC.ETD 28(6034)	Crystalline silicon photovoltaic (PV) array - On site measurment of I-V characteristics (IEC 61829-1:1995)

## DRAFT STANDARDS APPROVED FOR WIDE CIRCULATION

1	DOC.ETD 28(6031)	Photovoltaic (PV) systems - Characteristics of the
		utility interface (IEC 61727:1995)

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

#### **ETD 29 POWER CAPACITORS**

**SCOPE -** To prepare standards for power capacitors such as series and shunt capacitors for power systems, self-healing and non-self-healing power capacitors with metallized dielectric, ac motor capacitors, capacitors for inductive heating plants, voltage grading capacitors, coupling capacitors, energy storage capacitors etc.

NOTE - The standards for capacitors used in electronic circuits are excluded

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STANI	DARDS PUBLISHED			
1	IS 1709:1984   IEC 252(1975)	Capacitors for electric fan motors (first revision)	Mar 2006	2
2	IS 2993:1998 / IEC 60252(1993)	A.C. motor capacitors (second revision)	Jul 2003	
3	IS 9251:1979   IEC 60110(1973)	Capacitors for inductive heat generating plants operating at frequencies between 40 and 24 000 Hz	Mar 2006	1
4	IS 9348:1998 / IEC 60358(1990)	Coupling capacitor and capacitor dividers	Jul 2003	
5	IS 9835(Part 1):2001 / IEC 60143-1(1992)	Series capacitors for power systems: Part 1 General performance testing and rating- Safety requirements - guide for installation (first revision)		
6	IS 11530:1985   IEC 60358 (1990)	Voltage grading capacitor	Mar 2006	
7	IS 11548:1986	Capacitors for surge protection for use in voltage system above 650 V and upto 33 kV	Mar 2006	1
8	IS 12672:1989 / IEC 60593(1977)	Internal fuses and internal overpressure disconnectors for shunt capacitors	Mar 2006	
9	IS 12677:1989   IEC 60595(1977)	Internal fuses for series capacitors	Mar 2006	
10	IS 12730:1989   IEC 60594(1977)	Internal fuses and internal overpressure disconnectors for capacitors for inductive heat generating plants	Mar 2006	
11	IS 13203:1991   IEC 60996(1989)	Method for verifying accuracy of tan-delta measuremnts	Mar 2006	
12	IS 13340:1993   IEC 60831-1(1988)	Shunt capacitors for the self-healing type for ac power systems having rated voltage upto and including 650 V	Apr 2008	2
13	IS 13341:1992   IEC 60831-2(1988)	Requirements for ageing test, self-healing test and destruction test on shunt capacitors of the self-healing type for ac power systems having a rated voltage upto and including 650 V	Apr 2008	1
14	IS 13580:1992   IEC 60594(1977)	Internal fuses and internal overpressure disconnectors for power electronic capacitors	Apr 2008	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

15	IS 13585(Part 1):1994   IEC 60931-1(1989)	Shunt capacitors of non- self- healing type for ac power systems having a rated voltage upto and including 650 V: Part 1 General	Aug 2004	1
16	IS 13648:1993   IEC 61071-1(1991)	Power electronics capacitors	Apr 2008	
17	IS 13666:1993	Energy storage capacitors	Sep 2003	
18	IS 13925(Part 1):1998   IEC 60871-1(1987)	Shunt capacitors for ac power systems having a rated voltage above 1000 V: Part 1General performance, testing and rating safety requirements - Guide for installation and operation (superseding IS 2834:1986)	Dec 2003	1
19	IS 13925(Part 2):2002 / IEC60871-2(1999)	Shunt capacitors for ac power systems having a rated voltage above 1000 V: Part 2 Endurance testing (first revision)		
20	IS 13925(Part 3):2002 / IEC 60871-3(1996)	Shunt capacitors for ac power systems having a rated voltage above 1000 V: Part 3 Protection of shunt capacitors and shunt capacitors banks.		
21	IS 15359:2003 / IEC 61642 (1997)	Industrial ac net- work affected by harmonics- application of filters and shunt capacitors		
22	IS 15406(Part 1):2003 / IEC 61270-1(1996)	Capacitors for microwave ovens: Part 1 General		

## ETD 30 SURGE ARRESTERS

**SCOPE -** To prepare standards on surge arresters and their accessories, application guide for surge arrestors for different locations

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STAN	DARDS PUBLISHED			
1	* IS 3070(Part 3):1993   IEC 60099-4(1991)	Lightning arresters for alternating current systems : Part 3 Metal oxide surge-arresters without gaps for ac systems	Apr 2004	ŀ
2	IS 15086(Part 1):2001 / IEC 60099-1(1991)	Surge arresters: Part 1 Non-linear resistor type gapped surge arresters for a.c. systems [Superseding IS 3070(Part 1)]	Jul 2006	;
3	IS 15086(Part 3):2003   IEC 60099-3(1990)	Surge arresters: Part 3 Artificial pollution testing of surge arresters		
4	IS 15086(Part 5):2001 / IEC 60099-5(1996)	Surge arresters : Part 5 Selection and application recommendations (Superseading IS 4004)	Jul 2006	;
DRAF	T STANDARDS ISSUED IN WIDE	CIRCULATION		
1	DOC.ETD 30(5864)	Surge arresters : Part 5 Selection and application recommendations (First Revision)(IEC 60099-5(2000)		
2	DOC.ETD 30(5944)	Surge arresters:Part 4 Metal-oxide surge arresters without gaps for ac systems [revision of IS 3070 (Part 3):1993]		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

#### ETD 31 POWER ELECTRONICS

**SCOPE -** To prepare standards regarding equipment and their components for electronic power switching

NOTE 1 - Components which are comprised within the scope include electronic devices

NOTE 2- The scope does not include telecommunication apparatus other than convertors for power supplies to such apparatus, nor does it include power supplies for electrical measurement

NOTE 3- The standards for inverters for photovoltaic energy systems are excluded

NOTE 4- Converters for HVDC systems are excluded

SI. No	o. IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STA	NDARDS PUBLISHED			
1	IS 2511:1963   IEC 60119(1960)	Specification for Polycrystalline semiconductor rectifier stacks	Mar 2006	5 2
2	IS 3136:1965   IEC 60119(1960)	Specification for Polycrystalline semiconductor rectifier equipment	Mar 2006	;
3	IS 3895:1966   IEC 60146(1963)	Specification for Monocrystalline semiconductor rectifier cells and stacks	Mar 2006	;
4	IS 4540:1968   IEC 60146(1963)	Specification for Monocrystalline semiconductor rectifier assemblies and equipment	Mar 2006	;
5	IS 6619:1972	Specification for Safety code for semiconductor rectifier equipment	Mar 2006	;
6	IS 7204(Part 1):1974	Specification for Stabilized power supplies dc output: Part 1 Terms and definitions.	Mar 2006	;
7	IS 7204(Part 2):1980   IEC 60478-2(1975)	Specification for Stabilized power supplies dc output: Part 2 Rating and performance.	Mar 2006	;
8	IS 7204(Part 3):1980   IEC 60478-3(1976)	Specification for Stabilized power supplies dc output: Part 3 Radio frequency interference tests	Mar 2006	;
9	IS 7204(Part 4):1980   IEC 60478-4(1976)	Specification for Stabilized power supplies dc output: Part 4 Tests other than radio-frequency interference.	Mar 2006	;
10	IS 7788:1975   IEC 60411(1973)	Specification for Single-phase traction power converters	Mar 2006	;
11	IS 11260(Part 1):1985   IEC 60686(1980)	Specification for Stabilized power supplies ac output: Part 1Ratings and performance.	Mar 2006	;
12	IS 11260(Part 2):1985   IEC 60686 (1980)	Specification for Stabilized power supplies ac output: Part 2 Tests .	Mar 2006	;
13	IS 13314:1992	Solid state invertors run from storage batteries - Specification	Apr 2003	}

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

14	IS 14256:1995   IEC 61136-1(1992)	Rating specification for semiconductor power converters for adjustable speed electric drive systems - particularly for DC motor drives.	Mar 2005
15	IS 15199(Part 1):2002 / IEC 61287-1(1995)	Power convertors installed on board rolling stock: Part 1 characteristics and test methods .	
16	IS 15199(Part 2):2002 / IEC 61287-2(2001)	Power convertors: installed on board railway rolling stock - Part 2 Additional technical information	
	T STANDADDS EODMIII ATED		

#### DRAFT STANDARDS FORMULATED

1 DOC.ETD 31(5621) Uninterruptable power systems (UPS):Part 3 Methods of specifying the performance and test requirements .

## ETD 32 ELECTRICAL APPLIANCES

**SCOPE -** To prepare standards for electrical appliances for household and similar purpopses, including associated controls

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STANI	DARDS PUBLISHED			
1	SP 48 : 1991	Guide for requirements and testing of electric irons	Mar 2004	
2	SP 49 : 1991	Guide for requirements and testing of electric immersion water heaters	Mar 2004	
3	SP 50 : 1991	Guide for requirements and testing of electric radiators	Mar 2004	
4	SP 51 : 1991	Guide for requirements and testing of electric stoves	Mar 2004	
5	* IS 302(Part 1):1979   IEC 60335-1(1976)	Safety of household and similar electrical appliances: Part 1 General requirements (fifth revision)	Jul 2005	9
6	IS 302(Part 2/Sec 2):1997   IEC 60335-2-2(1993)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 2 Vacuum cleaners and water suction cleaning appliances	Mar 2004	1
7	IS 302(Part 2/Sec 3):2007   IEC 60335-2-3(2002)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 3 Electric iron [first revision of IS 302 (Part 2/Sec 3)]		
8	* IS 302(Part 2/Sec 3):1992   IEC 60335-2-3(1977)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 3 Electric iron	Apr 2003	10
9	IS 302(Part 2/Sec 4):1993   IEC 60335-2-4(1984)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 4 Spin extractors	Mar 2004	1
10	IS 302(Part 2/Sec 6):1993   IEC 60335-2-6(1986)	Safety of household and similar electrical appliances: Part 2 Particuar requirements, Section 6 Cooking ranges, cooking tables, ovens and similar appliances	Mar 2004	1
11	IS 302(Part 2/Sec 7):1994   IEC 60335-2-7(1984)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 7 Domestic electric clothes washing machines	Mar 2004	2
12	IS 302(Part 2/Sec 8):1994   IEC 60335-2-8(1987)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 8 Electric shavers, hair clippers and similar appliances	Mar 2004	1
13	IS 302(Part 2/Sec 9):1993   IEC 60335-2-9(1986)	Safety of household and similar electrical appliances: Part 2 Particular requirements: Section 9 Electric toasters, grills, roastors and similar appliances	Mar 2004	2
14	IS 302(Part 2/Sec 11):1994   IEC 60335-2-11(1976)	Safety of household and similar electrical appliances: Part 2 Particular requirements: Section 11 Tumbler dryers	Mar 2004	1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

15	IS 302(Part 2/Sec 12):1993   IEC60335-2-12(1987)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 12 Warming plates and similar appliances	Mar 2004	1
16	IS 302(Part 2/Sec 13):1994   IEC 60335-2-13(1987)	Safety of household and similar electrical appliances :Part 2 particular requirements, Section 13 Frying pans, deep fat fryers and similar appliances	Mar 2004	1
17	* IS 302(Part 2/Sec 14):1994   IEC 60335-2-14(1984)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 14 Electric kitchen machines	Mar 2004	1
18	* IS 302(Part 2/Sec 15):1993   IEC 60335-2-15(1986)	Safety of household and similar electrical appliances: Part 2 Particular requirements: Section 15 Appliances for heating liquids	Mar 2004	1
19	* IS 302(Part 2/Sec 21):1992   IEC 60335-2-21(1989)	Safety of household and similar electrical appliances: Part 2 Particlar requirements, Section 21 Stationary storage type electric water heater	Feb 2006	5
20	* IS 302(Part 2/Sec 23):1993   IEC 60335-2-23(1986)	Safety of household and similar elecrical appliances: Part 2 Particular requirements, Section 23 Appliances for skin and hair care	Mar 2004	1
21	IS 302(Part 2/Sec 24):1994   IEC 60335-2-24(1992)	Safety of household and similar electrical appliances:Part 2 Particular requirements Sec 24 Refrigerators, food freezers and ice makers	Mar 2004	
22	IS 302(Part 2/Sec 25):1994   IEC 60335-2-25(1988)	Safety of household and similar electrical appliances: Part 2 Particular requirements: Section 25 Microwave ovens	Mar 2004	1
23	IS 302(Part 2/Sec 26):1994   IEC 60335-2-26(1994)	Safety of household and similar electrical appliances: Part 2 Particular requirements: Section 26 Clocks	Mar 2004	1
24	IS 302(Part 2/Sec 30):2007   IEC 60335-2-30(2002)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 30 Room heaters (first revision)		
25	IS 302(Part 2/Sec 32):1994   IEC 60335-2-32(1993)	Safety of household and similar electrical appliances: Part 2 Particular requirements: Section 32 Massage appliances	Mar 2004	1
26	* IS 302(Part 2/Sec 35):1993   IEC 60335-2-35(1991)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 35 Elecric instanteneous water heater	Mar 2004	2
27	IS 302(Part 2/Sec 45):1994   IEC 60335-2-45(1986)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Sec 45 Electric heating tools	Mar 2004	1
28	IS 302(Part 2/Sec 46):1993   IEC 60335-2-46(1986)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 46 Electric steam cookers	Mar 2004	
29	IS 302(Part 2/Sec 59):1999   IEC 60335-2-59(1990)	Safety of household and similar electrical appliances : Part 2 Particuilar requirements , Section 59 Insect killers	Mar 2004	
30	IS 302(Part 2/Sec 76):1999   IEC 60335-2-76(1997)	Safety of household and similar electrical appliances Part 2 Particular requirements, Section 76 Electric fence energizers	Mar 2004	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

31	* IS 302(Part 2/Sec 201):1992   IEC 60335-2-74(1994)	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 201 Electric immersion water heater	Nov 2004	7
32	IS 302(Part 2/Sec 202):1992	Safety of household and similar electrical appliances: Part 2 Particular requirements, Section 202 Electric stoves	Mar 2004	2
33	IS 302(Part 2/Sec 203):1994	Safety of household and similar electrical appliances: Part 2 Particular requirements: Section 203 Electric call bells and buzzers for indoor use	Mar 2004	1
34	IS 302(Part 2/Sec 204):1994	Safety of household and similar electrical appliances: Part 2 Particular requirements: Section 204 Electric water boilers	Mar 2004	1
35	IS 302(Part 2/Sec 205):1994	Safety of household and similar electrical appliances: Part 2 Particular requirements, Sec 205 Steam irons	Jul 2005	2
36	IS 302(Part 2/Sec 206):1994	Safety of household and similar electrical appliances: Part 2 Particular requirements: Section 206 Electric coffee machines	Mar 2004	1
37	IS 302(Part 2/Sec 207):1994	Safety of household and similar electrical appliances: Part 2 Particular requirements, Sec 207 Electric hot plates	Mar 2004	1
38	IS 302(Part 2/Sec 208):1994	Safety of household and similar electrical appliances: Part 2 Part cular requirements, Sec 208 Single walled baking ovens	Mar 2004	1
39	IS 302(Part 2/Sec 209):1996	Safety of household and similar electrical appliance: Part 2 Particular requirements, Section 209 Portable low speed food grinding machines	Jul 2005	2
40	IS 365:1983	Electric hot plates (second revision)	Mar 2004	3
	IEC 60302-2-6(1982)			
41	IS 366:1991   IEC 60311(1988)	Electric irons (fourth revision)	Apr 2003	5
42	IS 367:1993   IEC 60530(1975)	Electric kettles and jugs for household and similar use (fourth revision)	Mar 2004	
43	IS 368:1992	Electric immersion water heaters (fourth revision)	Mar 2004	1
44	IS 369:1992   IEC 60675	Electric radiators (third revision)	Feb 2006	2
45	IS 959:1994	Electric soldering irons (second revision)	Mar 2004	
46	IS 1287:1993   IEC 60442(1973)	Electric toasters (third revision)	Mar 2004	
47	IS 1401:1970	Accessibility test probes (first revision)	Aug 2006	
48	IS 1415:1966	Electric hand lamps (revised)	Aug 2006	2

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

49	IS 1416:1972	Safety transformers (first revision)	Aug 2006	3
50	IS 2082:1993   IEC 60379(1982)	Stationary storage type electric water heaters (third revision)	Nov 2004	5
51	IS 2268:1994	Electric call bells and buzzers for indoor use (second revision)	Mar 2004	
52	IS 2994:1992	Electric stoves (second revision)	Mar 2004	
53	IS 3017:1985   IEC 60730(1982)	Thermostats for use with electric water heaters (first revision)	Aug 2006	4
54	IS 3412:1994	Electric water boilers (second revision)	Mar 2004	
55	IS 3481:1966	Electric portable lamp stands and brackets	Mar 2004	5
56	IS 3724:1966	Cartridge type heating elements (non-embedded type)	Aug 2006	4
57	* IS 3725:1966	Resistance wires, tapes and strips for heating elements	Jan 2006	3
58	IS 4158:1985	Solid embedded type electric heating elements (first revision)	Aug 2006	4
59	IS 4159:2002   IEC 60335-2-73(1994)	Mineral filled sheathed heating elements (third revision)		2
60	IS 4165:1991   IEC 60730(1982)	Thermostats for general purpose electric ovens (first revision)	Aug 2006	
61	IS 4250:1980	Domestic Electric food mixers (liquidizers and grinders) (first revision)	Dec 2004	9
62	IS 4283:1981	Hot air fans (first revision)	Aug 2004	3
63	IS 5159:1969	Mains-operated electric shavers	Aug 2006	2
64	IS 5161:1969	Flexible electric heating pads for domestic use	Aug 2006	4
65	IS 5579:1985	Neon testers (first revision)	Aug 2006	1
66	IS 5790:1985   IEC 60350	Domestic electric cooking ovens (first revision)	Sep 2004	3
67	IS 6290:1986   IEC 60311(1970)	Steam irons (first revision)	Aug 2006	5
68	IS 6365:1971	Laboratory electric ovens	Aug 2006	5
69	IS 6390(Part 2):1992	Domestic electrical clothes washing machines: Part 2 Requirements for tumbler dryers	Mar 2004	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

70	IS 6446:1986	Mica insulated heating elements (first revision)	Dec 2004	5
71	IS 7137:1973	Portable, hand held mains-operated electric massagers	Aug 2006	2
72	IS 7154:1994	Mains-operated electric hair-dryers (first revision)	Mar 2004	1
73	IS 7603:1975	Low speed food grinding machines	Jul 2005	3
74	IS 8506:1977	Laboratory electric resistance furnaces	Aug 2006	
75	IS 8978:1992	Electric instantaneous water heaters (second revision)	Dec 2004	2
76	IS 8985:1978	Single walled baking ovens	Aug 2006	1
77	IS 10436:1983   IEC 60335-2-13	Electric frying pans and deep fat fryers	Apr 2003	2
78	IS 10975:1984	Electric gas lighters	Aug 2006	1
79	IS 11676:1995   IEC 60705(1988)	Microwave ovens for household and similar purposes	Aug 2006	
80	IS 11879:1986	Electric steam cookers	Aug 2006	2
81	IS 12289:1988   IEC 60745-1	Hand held electric engraving tools	Mar 2004	
82	IS 13231:1991	Warming plates	Aug 2006	
83	IS 13588:1993 / IEC 60817(1984)	Spring operated impact test apparatus and calibration	Mar 2004	
84	IS 13886:1993   IEC 60730(1892)	Bimetallic thermostats and thermal cutouts for use with electric irons	Mar 2004	
85	IS 14144:1994   IEC 60661(1980)	Electric coffee makers (Superseding IS 3514)	Mar 2004	1
86	IS 14145:1994	Mains operated clocks (superseding IS 5160)	Apr 2003	
87	IS 14155:1994   IEC 60456(1974)	Domestic electric clothes washing machines for domestic use [Superseding IS 6390(Part 1):1983 and IS 6390 (Part 3): 1992]	Mar 2004	
88	IS 15644:2006 / IEC 62115(2003)	Safety of electric toys		
FINA	LISED DRAFTS UNDER PRINT			
1	DOC.ETD 32(5310)	Safety of household and similar electrical appliances: Part 1 General requirements (sixth revision)		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>/</sup> INDICATES EQUIVALENT STANDARDS

2	DOC.ETD 32(5431)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 201 Electric immersion water heaters (first revision)
3	DOC.ETD 32(5801)	Protection of persons and equipment by enclosures - Probes for verification
4	DOC.ETD 32(5804)	Automatic electrical controls for household and similar use: Part 1 General requirements
DRAF	STANDARDS ISSUED IN WIDE	CIRCULATION
1	DOC.ETD 32(5757)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 23 Appliances for skin or hair care (first revision)
2	DOC.ETD 32(5759)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 21 Stationary storage type electric water heaters (first revision)
3	DOC.ETD 32(5763)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 14 Electric kitchen machines (first revision)
4	DOC.ETD 32(5764)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 35 Electric instantaneous water heater (first revision)
5	DOC.ETD 32(5770)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 15 Appliances for Heating Liquids (first revision)
6	DOC.ETD 32(5870)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 31 Range hoods
7	DOC.ETD 32(5969)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 7 Domestic electric clothes washing machines (first revision)
8	DOC.ETD 32(5972)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 6 Cooking ranges , hobs, ovens and similar appliances (first revision)
9	DOC.ETD 32(5973)	Safety of household and similar electric appliances: Part 2 Particular requirements, Sec 9 Grills, toasters and similar portable cooking appliances (first revision)

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

## ETD 33 WINDING WIRES

**SCOPE -** To prepare standards for wires for electrical winding irrrespective of conductor material, shape or type of covering taking into account the needs in the fields of electrotechnology

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STANE	DARDS PUBLISHED			
1	IS 482:1981	Reels for covered round electrical winding wires (third revision)	Feb 2005	
2	IS 2069:1991	Drums for covered winding wires and strips for electrical purpose (second revision)	Feb 2005	
3	IS 4685(Part 1):1968	Varnish bonded glass-fibre covered copper conductors: Part 1 Round wires	Feb 2005	1
4	IS 5825:1993 / IEC 60172(1987)	Test procedure for the determination of the temperature index of enamelled winding wires (first revision)	Jun 2003	
5	IS 6162(Part 1):1971   IEC 60111	Paper covered aluminium conductors : Part 1 Round conductors	Jun 2003	4
6	IS 6162(Part 2):1971   IEC 60111	Paper covered aluminium conductors:Part 2 Rectangular conductors	Jun 2003	5
7	IS 6181:1971	Varnish bonded glass-fibre braided rectangular copper conductors	Jun 2003	1
8	IS 7391(Part 1):1974   IEC 60182	Cotton covered copper conductors : Part 1 Round conductors	Jun 2003	2
9	IS 7391(Part 2):1974	Cotton covered copper conductors: Part 2 Rectangular conductors (superseeding IS:2068)	Jun 2003	
10	IS 7404(Part 1):1991	Paper covered copper conductors: Part 1 Round conductors [superseeding IS:3454) (first revision)	Feb 2005	
11	IS 7576:1974   IEC 60317-1	Bunched enamelled copper conductors with silk covering	Jun 2003	
12	IS 8572:1993	Paper covered flexible/stranded copper conductors for transformer leads (first revision)	Jun 2003	
13	IS 8783(Part 1):1995	Winding wires for submersible motors Part 1: Conductor data (first revision)	Feb 2005	1
14	IS 8783(Part 2):1995	Winding wires for submersible motors Part 2: Materials for dielectric and jacket (first revision)	Feb 2005	1
15	IS 8783(Part 3):1995	Winding wires for submersible motors Part 3: Methods of tests (first revision)	Feb 2005	2
16	IS 8783(Part 4/Sec 1):1995	Winding wires for submersible motors Part 4: Specifications for individual wires, Section 1 HR PVC insulated wires (first revision)	Feb 2005	1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

<sup>|</sup> INDICATES EQUIVALENT STANDARDS

17	IS 8783(Part 4/Sec 2):1995	Winding wires for submersible motors Part 4: Specifications for individual wires, Section 2 Crosslinked polyethylene insulated and polyamide jacketed wires (first revision)	Feb 2005	
18	IS 8783(Part 4/Sec 3):1995	Winding wires for submersible motors Part 4: Specifications for individual wires, Section 3 Polyester and polypropylene insulated winding wires (first revision)	Feb 2005	1
19	IS 9148:1979	Tape wrapped rectangular and square copper wires with a temperature index of 220	Feb 2005	1
20	IS 9778:1981	Guide for evaluation of thermal endurance of varnish bonded glass-fibre covered rectangular copper conductors	Feb 2005	1
21	IS 10031:1981   IEC 60264-3(1973)	Taper barrelled delivery spools for covered round electrical winding wires	Feb 2005	
22	IS 11174:1984	Aromatic polyamide paper covered rectangular and square copper wires with temperature index 200	Feb 2005	
23	IS 11184:1984	Enamelled and varnish bonded glass fibre covered round copper wires	Feb 2005	1
24	IS 11395:1985	Tape wrapped round copper wires with temperature index of 220	Feb 2005	
25	IS 11597:1986	Polyester tape wrapped, varnish bonded glass-fibre covered rectangular paper conductors	Feb 2005	
26	IS 13343:1992	Guide for evaluation of thermal endurance of enamelled and varnish bonded glass covered copper conductors	Jun 2003	
27	* IS 13730(Part 0/Sec 1):1993 / IEC 60317-0-1	Specifications for particular types of winding wires: Part 0 General requirements, Section 1 Enamelled round copper wire	Jun 2003	
28	* IS 13730(Part 0/Sec 2):1993 / IEC 60317-0-2	Specifications for particular types of winding wires: Part 0 General requirements, Section 2 Enamelled rectangular copper wire	Jun 2003	
29	* IS 13730(Part 0/Sec 3):1994	Specifications for particular typses of winding wires: Part 0 General requirements, Section 3 Enamelled round aluminium wire	Feb 2005	
30	* IS 13730(Part 0/Sec 4):1993 / IEC 60317-0-4	Specifications for particular types of winding wires: Part 0 General requirements, Section 4 Glass fibre wound bare or enamelled rectangular copper wire	Jun 2003	
31	IS 13730(Part 0/Sec 5):2003 / IEC 60317-0-5(2000)	Specifications for particular types of winding wires: Part 0 General requirements, Section 5 glass fibre braided, bare or enamelled rectangular copper wire		
32	IS 13730(Part 1):1993 / IEC 60317-1(1990)	Specifications for particular types of winding wires: Part 1 Polyvinyl acetal enamelled round copper wire, class 105 [superseeds IS 4800(Part 4):1968]	Jun 2003	
33	IS 13730(Part 2):1996 / IEC 60317-2(1990)	Specifications for particular types of winding wires Part 2: Solderable polyurethane enamlled round copper wire, class 130, with a bonding layer.	Dec 2006	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

34	IS 13730(Part 3):1996 / IEC 60317-3(1990)	Specifications for particular types of winding wires Part 3 polyester enamelled round copper wire, class 155	Dec 2006
35	IS 13730(Part 4):1993 / IEC 60317-4(1990)	Specifications for particular types of winding wires: Part 4 Solderable polyurethane enamelled round copper wire, class 130 [Superseeds IS 4800(Part 6):1968]	Jun 2003
36	IS 13730(Part 6):1994	Specifications for particular types of winding wires: Part 6 Oleo-resinous enamelled round aluminium wire, Class 180 [Superseeds IS 4800(Part 7):1970]	Feb 2005
37	IS 13730(Part 7):1993 / IEC 60317-7(1990)	Specifications for particular types of winding wiresC Part 7 Polyimide enamelled round copper wire Class 220 [superseeds IS 4800(Part 11):1981]	Jun 2003
38	IS 13730(Part 8):1996 / IEC 60317-8(1990)	Specifications for particular types of winding wires: Part 8 polyesterimide enamelled round copper wire class 180	Dec 2008
39	IS 13730(Part 9):1994	Specifications for particular types of winding wires :Part 09 Polyester enamelled round aluminium wire, Class 130	Feb 2005
40	IS 13730(Part 13):1993 / IEC 60317-13(1990)	Specifications for particular types of winding wires: Part 13 Polyester or polyesterimide overcoated with polyamide-imide enamelled round copper wire, Class 200	Jun 2003
41	IS 13730(Part 15):1994	Specifications for particular types of winding wires: Part 15 Polyesterimide enamelled round aluminium wire, Class 180	Feb 2005
42	IS 13730(Part 16):1996 / IEC 60317-16 (1990)	Specifications for particular types of winding wires: Part 16 Polyester enamelled rectangular copper wire, Class 155	Dec 2006
43	IS 13730(Part 17):1996 / IEC 60317-17 (1990)	Specifications for particular types of winding wires: Part 17 Polyvinyl acetal enamelled rectangular copper wire, Class 105	Dec 2006
44	IS 13730(Part 20):1993 / IEC 60317-20(1990)	Specifications for particular types of winding wires: Part 20 Solderable polyurethane enamelled round copper wire, Class 155	Jun 2003
45	IS 13730(Part 26):1996 / IEC 60317-26 (1990)	Specifications for particular types of winding wires: Part 26 Polyamide-imide enamelled round copper wire, Class 200	Jun 2003
46	IS 13730(Part 27):1997 / IEC 60317-27(1990)	Specifications for particular types of winding wires: Part 27 Paper covered rectangular copper wire	Jun 2003
47	IS 13730(Part 28):1997 / IEC 60317-28(1990)	Specifications for particular types of winding wires: Part 28 Polyesterimide enamelled rectangular copper wire, Class 180	Jun 2003
48	IS 13730(Part 29):1996 / IEC 60317-29(1990)	Specifications for particular types of winding wires: Part 29 Polyester or polyesterimide overcoated with polyamide-imide enamelled rectangular copper wire, Class 200	Jun 2003

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

49	IS 13730(Part 31):1997 / IEC 60317-31(1990)	Specifications for particular types of winding wires: Part 31 Glass-fibre wound, polyester or polyesterimide varnish- treated, bare or enamelled rectangular copper wire, temperature index 180	Jun 2003
50	IS 13730(Part 32):1997 / IEC 60317-32(1990)	Specifications for particular types of winding wires: Part 32 Glass-fibre wound, polyester or polyesterimide varnish-treated, bare or enamelled rectangular copper wire, temperature index 155	Jun 2003
51	IS 13730(Part 33):1997 / IEC 60317-33 (1990)	Specifications for particular types of winding wieres: Part 33 Glass-fibre wound, silicone varnish-treated bare or enamelled rectangular copper wire, temperature index 200	Jun 2003
52	IS 13730(Part 34):2000 / IEC 60317-34(1997)	Specifications for particular types of winding wires: Part 34 Polyester enamelled round copper wire, Class 130 (first revision)	Feb 2005
53	IS 13730(Part 39):2005 / IEC 60317-39:1992	Specifications for particular types of wires: Part 39 Glass-fibre braided polyester or polyesterimide varnish-treated, bare or enamelled rectrangular copper wire, temperature index 180	
54	IS 13730(Part 43):2005 / IEC 60317-43:1997	Specifications for particular types of wires: Part 43 Aromatic polyimide tape wrapped round copper wire, class 240	
55	IS 13730(Part 44):2005 / IEC 60317-44:1997	Specifications for particular types of wires: Part 44 Aromatic polyimide tape rapped rectangular copper wire, class 240	
56	IS 13730(Part 45):1999	Specifications for particular type of winding wires : Part 45 Polyester enamelled round copper wire , class 130	Mar 2004
56 57	IS 13730(Part 45):1999 IS 13730(Part 48):2005 / IEC 60317-48:1998	Part 45 Polyester enamelled round copper wire , class	Mar 2004
	IS 13730(Part 48):2005	Part 45 Polyester enamelled round copper wire, class 130  Specifications for particular types of wires: Part 48 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index	Mar 2004
57	IS 13730(Part 48):2005 / IEC 60317-48:1998 IS 13730(Part 49):2005	Part 45 Polyester enamelled round copper wire, class 130  Specifications for particular types of wires: Part 48 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index 155  Specifications for particular types of wires: Part 49 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index	Mar 2004
57 58	IS 13730(Part 48):2005 / IEC 60317-48:1998 IS 13730(Part 49):2005 / IEC 60317-49:1999	Part 45 Polyester enamelled round copper wire, class 130  Specifications for particular types of wires: Part 48 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index 155  Specifications for particular types of wires: Part 49 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index 180  Specifications for particular types of wires: Part 50 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index	Mar 2004
57 58 59	IS 13730(Part 48):2005 / IEC 60317-48:1998  IS 13730(Part 49):2005 / IEC 60317-49:1999  IS 13730(Part 50):2005 / IEC 60317-50:1999	Part 45 Polyester enamelled round copper wire, class 130  Specifications for particular types of wires: Part 48 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index 155  Specifications for particular types of wires: Part 49 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index 180  Specifications for particular types of wires: Part 50 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index 200  Specifications for particular types of wires: Part 53 Aromatic polyamide (aramid) tape wrapped	Mar 2004
57 58 59	IS 13730(Part 48):2005 / IEC 60317-48:1998  IS 13730(Part 49):2005 / IEC 60317-49:1999  IS 13730(Part 50):2005 / IEC 60317-50:1999  IS 13730(Part 53):2005 / IEC 60317-53:1999  IS 13778(Part 1):1993	Part 45 Polyester enamelled round copper wire, class 130  Specifications for particular types of wires: Part 48 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index 155  Specifications for particular types of wires: Part 49 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index 180  Specifications for particular types of wires: Part 50 Glass fibre wound resin or varnish impregnated bare or enamelled round copper wire, temperature index 200  Specifications for particular types of wires: Part 53 Aromatic polyamide (aramid) tape wrapped rectangular copper wire, temperature index 220	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

64	IS 13778(Part 4):1994 / IEC 60851-4:1985	Methods of tests for winding wires: Part 4 Chemical properties	Feb 2005	
65	IS 13778(Part 5):1993 / IEC 60851-5(1985)	Methods of tests for winding wires: Part 5 Electrical properties	Jun 2003	
66	IS 13778(Part 6):1993 / IEC 60851-6:1985	Methods of tests for winding wires: Part 6 Thermal properties	Jun 2003	
67	IS 14841(Part 2/Sec 1):2000 / IEC 60264-2-1:1989	Packaging of winding wires: Part 2 Cylindrical barrelled delivery spools Section 1 Basic dimensions	Feb 2005	
68	IS 14841(Part 2/Sec 2):2000 / IEC 60264-2-2:1990	Packaging of winding wires: Part 2 Cylindrical barrelled delivery spools, Section 2 Specification for returnable spools made from thermoplastic material	Feb 2005	
69	IS 14841(Part 3/Sec 1):2000 / IEC 60264-3-1:1990	Packaging of winding wires: Part 3 Taper barrelled delivery spools, Section 1 basic dimensions	Feb 2005	
70	IS 14841(Part 3/Sec 2):2000 / IEC 60264-3-2:1990	Packaging of winding wires: Part 3 Taper barrelled delivery spools, Section 2 Specification for returnable spools made from thermoplastic material	Feb 2005	
71	IS 14841(Part 3/Sec 3):2000 / IEC 60264-3-3:1990	Packaging of winding wires: Part 3 Taper barrelled delivery spools, Section 3 Specification for non-returnable spools made from thermoplastic material	Feb 2005	
72	IS 14841(Part 3/Sec 4):2000 / IEC 60264-3-4:1999	Packaging of winding wires: Part 3 Taper barrelled delivery spools, Section 4 basic dimensions of containers for taper barrelled delivery spools	Feb 2005	
73	IS 14841(Part 4/Sec 1):2000 / IEC 60264-4-1:1997	Packaging of winding wires: Part 4 Methods of test, Section 1 Delivery spools made from thermoplastic material	Feb 2005	
DRA	FT STANDARDS ISSUED IN WIDE	CIRCULATION		
1	DOC.ETD 33(6068) #Error	specification for particular types of winding wires - Part 0-3:General requirements-Enamelled Round Aluminium Wire	2001	rror
2	DOC.ETD 33(0) / 60851-4	Winding Wires- Test Methods Part 4: Chemical Properties	2001	rror
3	DOC.ETD 33(5839) / (IEC 60317-0-1)	Specifications for particular types of winding wires: Part 0 General requirements, Section 1 Enamelled round copper wire(First Revision) (IEC 60317-0-1)		
4	DOC.ETD 33(5844) / IEC 60317-0-2	Specifications for particular types of winding wires: Part 0 General requirements, Section 2 Enamelled rectangular copper wire (First Revision)(IEC 60317-0-2)		
5	DOC.ETD 33(5845) / IEC 60317-0-3(2004)	Specifications for particular types of winding wires: Part 0 General requirements, Section 3 Enamelled round aluminium wire (First Revision)[(IEC 60317-0- 3(2004)]		
6	DOC.ETD 33(5846) / IEC 60317-0-4(1999)	Specifications for particular types of winding wires: Part 0 General requirements, Section 4 Glass fibre wound bare or enamelled rectangular copper wire (First Revision) [IEC 60317-0-4(1999)]		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

7	DOC.ETD 33(5858)	Methods of tests for winding wires: Part 1 General (first revision) (IEC 60851-1(1996)		
8	DOC.ETD 33(5859)	Methods of tests for winding wires: Part 4 Chemical properties (first revision) (IEC 60851-4(2005)		
9	DOC.ETD 33(5860)	Methods of tests for winding wires: Part 5 Electrical properties (first revision) (IEC 60851-5(2004)		
10	DOC.ETD 33(6065) / IEC 60851-5	Winding Wires Test Methods Part 5: Eectrical Properties		rror
11	DOC.ETD 33(6066) / IEC 60851-1	Winding Wires Test methods Part 1: General	2001	rror
12	DOC.ETD 33(6069) / IEC 60851-6	Winding wires - Test Methods Part 6: thermal Properties	2001	rror

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

## ETD 34 INSTRUMENTS TRANSFORMERS

SI. No. IS Number/ DOC Number

# **SCOPE -** To prepare standards and application guides for instrument transformers

Title

Reaffirm

			Date	Am
STA	NDARDS PUBLISHED			
1	IS 2705(Part 1):1992   IEC 60185(1966)	Current transformers: Part 1 General requirements (second revision)	Aug 2007	1
2	IS 2705(Part 2):1992   IEC 60185(1966)	Current transformers: Part 2 Measuring current transformers (second revision)	Aug 2007	,
3	IS 2705(Part 3):1992   IEC 60185(1966)	Current transformers: Part 3 Protective current transformers (second revision)	Aug 2007	,
4	IS 2705(Part 4):1992   IEC 60185(1966)	Current transformers: Part 4 Protective current transformers for special purpose applications (second revision)	Aug 2007	,
5	IS 3156(Part 1):1992   IEC 60186(1987)	Voltage transformers: Part 1 General requirements (second revision)	Aug 2007	' 1
6	IS 3156(Part 2):1992   IEC 60186(1987)	Voltage transformers: Part 2 Measuring voltage transformers (second revision)	Aug 2007	,
7	IS 3156(Part 3):1992   IEC 60186(1987)	Voltage transformers: Part 3 Protective voltage transformers (second revision)	Aug 2007	,
8	IS 3156(Part 4):1992   IEC 60186(1987)	Voltage transformers: Part 4 Capacitor voltage transformers (second revision)	Aug 2007	,
9	IS 4146:1983	Application guide for voltage transformers (first revision)	Sep 2006	i
10	IS 4201:1983	Application guide for current transformers (first revision)	Sep 2006	<b>i</b>
11	IS 5547:1983	Application guide for capacitor voltage transformers (first revision)	Sep 2006	i
12	IS 6949:1973	Summation current transformers	Sep 2006	i
13	IS 11322:1985   IEC 44-4 (1980)	Method for partial discharge measurement in instrument transformers	Sep 2006	i

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

### ETD 35 POWER SYSTEM RELAYS

**SCOPE -** To prepare standards for power systems relays including those incorporating solid state devices, also taking into account combination of relays and devices to form schemes for power systems including control equipment associated with that protection

NOTE - Relays used in electronic equipment are excluded

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STANI	DARDS PUBLISHED			
1	IS 3231(Part 0):1986	Electrical relays for power system protection: Part 0 General introduction and list of parts (first revision)	Feb 2004	
2	IS 3231(Part 1/Sec 1):1986	Electrical relays for power system protection: Part 1 General requirements, Section 1 Contact performance (first revision)	Sep 2006	;
3	IS 3231(Part 1/Sec 2):1986	Electrical relays for power system protection: Part 1 General requirements, Section 2 Insulation tests (first revision)	Sep 2006	i
4	IS 3231(Part 1/Sec 3):1986   IEC 255-4 (1976)	Electrical realys for power system protection: Part 1 General requirements, Section 3 High frequency disturbance test for static relays (first revision)	Sep 2006	i
5	IS 3231(Part 2/Sec 1):1987   IEC 255-1-00	Electrical relays for power system protection: Part 2 Requirements for principal families, Section 1 All or nothing relays	Sep 2006	i
6	IS 3231(Part 2/Sec 2):1987	Electrical relays for power system protection: Part 2 Requirements for principal families, Section 2 General requirements for measuring relays	Sep 2006	í
7	IS 3231(Part 2/Sec 3):1987   IEC 255-8 (1978)	Electrical relays for power system protection: Part 2 Requirements for principal families, Section 3 General requirements for thermal relays	Sep 2006	i
8	IS 3231(Part 3/Sec 1):1987   IEC 255-3 (1971)	Electrical relays for power system protection: Part 3 Requirements for particular group of relays, Section 1 Non-specified time or independent specified time measuring relays	Sep 2006	5 1
9	IS 3231(Part 3/Sec 2):1987   IEC 255-4 (1976)	Electrical relays for power system protection: Part 3 Requirements for particular group of relays, Section 2 Dependent specified time measuring relays	Sep 2006	i
10	IS 3231(Part 3/Sec 3):1987   IEC 255-13(1980)	Electrical relays for power system protection:Part 3 Requirements for particular group of relays, Section 3 Biased (percentage) differential relays	Sep 2006	i
11	IS 3231(Part 3/Sec 4):1987   IEC 255-12 (1980)	Electrical relays for power system protection: Part 3 Requirements for particular group of relays, Section 4 Directional relays and power relays	Sep 2006	i
12	IS 3231(Part 3/Sec 5):1987   IEC255-16 (1982)	Electrical relays for power system Protection: Part 3 Requirements for particular group of relays, Section 5 Impedance measuring relays	Sep 2006	i
13	IS 3637:1966	Gas operated relays	Sep 2006	5 1

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION
/ INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

14	IS 3638:1966	Application guide for gas operated relays	Sep 2006	1
15	IS 3842(Part 1):1967	Application guide for electrical relays for ac systems: Part 1 Overcurrent relays for feeders and transformers	Sep 2006	
16	IS 3842(Part 2):1966	Application guide for electrical relays for ac systems: Part 2 Overcurrent relays for generators and motors	Sep 2006	
17	IS 3842(Part 3):1966	Application guide for electrical relays for ac systems: Part 3 Phase unbalance relays including negative phase sequence relays	Sep 2006	1
18	IS 3842(Part 4):1966	Application guide for electrical relays for ac systems: Part 4 Thermal relays	Sep 2006	1
19	IS 3842(Part 5):1968	Application guide for electrical relays for ac systems: Part 5 Distance protection relays	Sep 2006	
20	IS 3842(Part 6):1972	Application guide for electrical relays for ac systems: Part 6 Power relays	Sep 2006	
21	IS 3842(Part 7):1972	Application guide for electrical relays for ac systems: Part 7 Frequency relays	Sep 2006	
22	IS 3842(Part 8):1976	Application guide for electrical relays for ac systems: Part 8 Voltage relays	Sep 2006	
23	IS 3842(Part 9):1977	Application guide for electrical relays for ac systems: Part 9 Relays for busbar protection	Sep 2006	
24	IS 3842(Part 10):1976	Application guide for electrical relays for ac systems: Part 10 Relays for transverse differential protection	Sep 2006	
25	IS 3842(Part 12):1976	Application guide for electrical relays for ac systems: Part 12 Differential relays for transformers	Sep 2006	
26	IS 4483(Part 1):1968	Preferred panel cutout dimensions for electrical relays: Part 1 Flush mounting IDMTL relays	Sep 2006	
27	IS 5834(Part 1):1994	Electrical timer relays for industrial purposes (Part 1) Pneumatic (First revision)	Feb 2004	
28	IS 5834(Part 2):1993	Electrical timer relays for industrial purposes (Part 2) Motorized (first revision)	Apr 2003	1
29	IS 5834(Part 3):1981	Electrical timer relays for industrial purposes (Part 3) Electronic	Feb 2004	2
30	IS 8686:1977   IEC 255-4	Static protective relays	Sep 2006	
31	IS 8714:1978	Electrical protective relays for use in siesmic areas	Sep 2006	
32	IS 9124:1979	Guide for maintenance and field testing of electrical relays	Sep 2006	1
33	IS 9994:1981	Potential relays for capacitor start-capacitor run hermetic compressors	Sep 2006	
34	IS 10075:1981	Start relay and overload protector for resistance start induction run hermetic compressors	Sep 2006	
* 14151	04750 0744040000000000000000000000000000	** !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!		

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

35	IS 12083(Part 1):1986	Electrical relays: Part 1 Contact performance	Sep 2006
	IEC 255-0-20 (1974)		
36	IS 12083(Part 2):1986	Electrical relays: Part 2 Insulation tests	Sep 2006
	IEC 255-5 (1977)		
37	IS 14122:1994	Built in thermal protection for electric motors rated up	Sep 2006
	IEC 60034-11(1978)	to 660 V ac	
38	ISQC 160000 : 1988	Electrical relays:Part 1 tests and measurement	Feb 2004
	/ IECQC 60255-7:1978	procedures for electromechanical all-or-nothing relays	
39	ISQC 160000 : 1988	Electrical relays:Part 2 Applications of the IEC quality	Feb 2004
	/ IECQC 60255-10:1979	assessment systems for electronic components to all- or-nothing relays	
40	ISQC 160100 : 1988	Electrical relays, sectional specification:	Feb 2004
	/ IECQC 160100:1983	Electromechanical all-or-nothing relays of assessed quality	
41	ISQC 160101 : 1988	Electrical relays, blank detail specification:	Feb 2004
	/ IECQC 160101:1993	electromechanical all-or-nothing relays of assessed quality, test schedules 1, 2 and 3	

## ETD 36 TOOLS AND EQUIPMENTS FOR LIVE WORKING

**SCOPE -** To prepare standard on electrical and mechanical characteriistics as well as reliability requirements for tools and eqipment used in connections with work on energized electrical systems

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
STANI	DARDS PUBLISHED			
1	IS 13770:1993	Insulating foam-filled tubes and solid rods for live	Dec 2004	
	/ IEC 60855:1985	working		
2	IS 13771:1993 / IEC 60895:1987	Conductive clothing for live working at nominal voltage up to 800 kV ac	Dec 2004	
3	IS 13772:1993 / IEC 60900:1989	Hand tools for live working up to 1000 V ac and 1500 V dc	Dec 2004	· 1
4	IS 13773:1993 / IEC 60984:1990	Sleeves of insulating material for live working	Dec 2004	
5	IS 13774:1993 / IEC 60903:1988	Specification for gloves and mitts of insulating materials for live working	Dec 2004	
6	IS 13961:1994 / IEC 60832:1988	Insulating poles (insulating sticks) and universal tool attachments (fittings) for live working	Dec 2004	
7	IS 14956:2001 / IEC 61472:1998	Live working - Minimum approach distances - method of calculation	Jun 2006	i
8	IS 14957:2001 / IEC 61057:1991	Aerial devices with insulating boom used for live working	Jun 2006	i
9	IS 14981:2001 / IEC 61219:1993	Live working - Earthing or earthing and short-circuiting equipment using lances as a short-circuiting device - lance earthing	Jun 2006	i
10	IS 14993:2001 / IEC 61236:1993	Saddles, pole clamps (stick clamps) and accessories for live working	Jun 2006	i
11	IS 14994:2001 / IEC 61318:1994	Live working - Guidelines for quality assurance plans	Jun 2006	j
12	IS 15405(Part 1):2003 / IEC 61482-1:2002	Live working - Guidelines for dielectric testing of tools and equipment		
13	IS 15407:2003 / IEC 61278:1997	Live Working - flame resistance materials for clothing for thermal protection of working thermal hazards of an electric arc		
14	IS 15416:2003 / IEC 60743:2001	Live working - Terminology for tools equipments and devices (Superceding IS 13985)		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED

## ETD 37 CONDUCTORS AND ACCESSORIES FOR OVERHEAD LINES

**SCOPE -** To prepare standards for conductors and accessories for overhead power lines and codes of practice for the design, installation and maintainance or overhead power lines

SI. No.	IS Number/ DOC Number	Title	Reaffirm Date	Am
STANI	DARDS PUBLISHED			
1	IS 398(Part 1):1996   IEC 889	Aluminium conductors for overhead transmission purposes: Part 1 Aluminium stranded conductors (third revision)	Sep 2007	,
2	IS 398(Part 2):1996   IEC 889 (1987)	Aluminium conductors for overhead transmission purposes: Part 2 Aluminium conductors, galvanized steel reinforced (third revision)	Sep 2007	7 2
3	IS 398(Part 3):1976	Aluminium conductors for overhead transmission purposes: Part 3 Aluminium conductors, aluminized steel reinforced (second revision)	Jul 2004	. :
4	IS 398(Part 4):1994   IEC 208(1966)	Aluminium conductors for overhead transmission purposes: Part 4 Aluminium alloy stranded conductors (aluminium magnesium silicon type) (third revision)	Jul 2004	1
5	IS 398(Part 5):1992	Aluminium conductors for overhead transmission purposes: Part 5 Aluminium conductors, galvanized steel reinforced for extra high voltage (400 kV and above) (first revision)	Sep 2007	7 2
6	IS 1778:1980	Reels and drums for bare conductors (first revision) (superseding IS:2889)	Jul 2004	1
7	IS 2121(Part 1):1981	Conductors and earth wire accessories for overhead power lines: Part 1 Armour rods, binding wires and tapes for conductors (first revision)	Sep 2007	,
8	IS 2121(Part 2):1981	Conductors and earth wire accessories for overhead power lines: Part 2 Mid span joints and repair sleeves for conductors (first revision)	Sep 2007	,
9	IS 2121(Part 3):1992	Conductors and earthwire accessories for overhead power lines: Part 3 Accessories for earthwire (first revision)	Sep 2007	,
10	IS 2121(Part 4):1991	Conductors and earth wire accessories for overhead power lines: Part 4 Non-tension joints (first revision)	Sep 2007	,
11	IS 2532:1965	Hard-drawn copper wire for telegraph and telephone purposes	Sep 2007	,
12	IS 2665:1964	Cadmium-copper wire for telegraph and telephone purposes	Sep 2007	<b>,</b> 2
13	IS 3402:1965	Cadmium-copper conductors for overhead railway traction	Sep 2007	' 1
14	IS 3476:1986	Trolley and contact wire for electric traction (first revision)	Jul 2004	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

DRAFT	STANDARDS ISSUED IN WIDE	CIRCULATION		
25	IS 14214:1994	Annealed stranded copper conductors for electric traction	Jul 2004	
24	IS 12048:1987	Helically formed fittings for overhead lines upto 33 kV	Sep 2007	
23	IS 10162:1982	Spacers and spacer dampers for twin horizontal bundle conductors	Sep 2007	1
22	IS 9708:1993	Stockbridge vibration dampers for overhead power lines (first revision)	Mar 2004	
21	IS 9511:1980	Earth knobs for neutral conductors	Jul 2004	
20	IS 5613(Part 3/Sec 2):1989	Code of practice for design, installation and maintenance of overhead power lines: Part 3 400 kV lines, Section 2 Installation and maintenance	Jul 2004	
19	IS 5613(Part 3/Sec 1):1989	Code of practice for design, installation and maintenance of overhead power lines: Part 3 400 kV lines, Section 1 Design	Jul 2004	1
18	IS 5613(Part 2/Sec 2):1985	Code of practice for design, installation and maintenance of overhead power lines: Part 2 Lines above 11 kV and upto and including 220 kV, Section 2 Installation and maintenance (first revision)	Sep 2007	2
17	IS 5613(Part 2/Sec 1):1985	Code of practice for design, installation and maintenance of overhead power lines: Part 2 Lines above 11 kV and upto and including 220 kV, Section 1 Design (first revision)	Sep 2007	1
16	IS 5613(Part 1/Sec 2):1989	Code of practice for design, installation and maintenance of overhead power lines: Part 1 Lines upto and including 11 kV, Section 2 Installation and maintenance (first revision)	Sep 2007	
15	IS 5613(Part 1/Sec 1):1985	Code of practice for design, installation and maintenance of overhead power lines: Part 1 Lines upto and including 11 kV, Section 1 Design (first revision)	Sep 2007	

DOC.ETD 37(5817) Specification for Steel Reels and Drums for Bare Conductor

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED | INDICATES EQUIVALENT STANDARDS

### ETD 39 FUSES

- **SCOPE -** To prepare standards regarding specification for all types of fuses, with the object of determining :
  - a) The characteristics which are essential in specifying the conditions for installation and operation of the fuses
  - b) The requirements to be met by the fuses and the tests designed to ascertain their compliance with such requirements as well as the procedures to be followed for these tests
  - c) Markings
  - To prepare for these fuses standards, standard values of:
  - 1) Characteristics, rated voltages, currents and breaking capacities:
  - 2) Dimensions in connections with the fixing and interchangeability of high voltage and low voltage fuses

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
0741	DARRO BURUIQUED		Date	Am
SIAN	DARDS PUBLISHED			
1	DOC.ETD 39(5478) / IEC 60127-5(1988)	Miniature fuses: Part 5 Guidelines for quality assessment of miniature fuse-links		
2	IS 2086:1993	Carriers and bases used in rewirable type electric fuses for voltages upto 650 V(third revision) (Superseding IS 8724)	Mar 2004	1
3	IS 9385(Part 1):1979   IEC 282-1(1979)	High voltage fuses:Part 1 Current limiting fuses	Sep 2007	,
4	IS 9385(Part 2):1980   IEC 282-2(1970)	High voltage fuses:Part 2 Expulsion and similar fuses (superseding IS:5792)	Sep 2007	,
5	IS 9385(Part 3):1980   IEC 282-2(1970)	High voltage fuses:Part 3 Application guide for high voltage fuses	Sep 2007	•
6	IS 9385(Part 4):1983	High voltage fuses:Part 4 Determination of short- circuit power factor for testing of high voltage fuses	Sep 2007	,
7	IS 9385(Part 5):1983   IEC 282-1A(1978)	High voltage fuses:Part 5 Types and dimensions of fuse-links for current limiting fuses	Mar 2006	;
8	IS 9402:1980   IEC 549(1976)	High voltage fuses for the external protection of shunt power capacitors	Sep 2007	,
9	IS 9926:1981	Fuse wires used in rewirable type electric fuses upto 650 volts	Mar 2006	;
10	IS 10624:1983   IEC 644(1979)	High voltage fuse-links for motor circuit applications	Mar 2006	;
11	IS 12534:1988	Application guide for the selection of high voltagefuses for transformer circuit applications	Sep 2007	•
12	IS 13703(Part 2/Sec 2):1993 / IEC 60269-2-1(1987)	Low voltage fuses for voltages not exceeding 1000 V ac or 1500 V dc: Part 2 Fuses for use by authorized persons, Section 2 Examples of standardized fuses	Mar 2004	ŀ
13	IS 60127(Part 6):1994 / IEC 60127-6:1994	Miniature fuses: Part 6 Fuse holders for miniature cartridge fuse links	Sep 2007	•
* INDIC	CATES STANDARDS UNDER REVISION	** INDICATES STANDARDS TO BE REVISED		
/ 14:=:-				

| INDICATES EQUIVALENT STANDARDS

118

/ INDICATES DUAL NUMBER STANDARDS

# FINALISED DRAFTS UNDER PRINT

1	DOC.ETD 39(5477) / IEC 60127-4(1996)	Miniature fuses: Part 4 Universal modular fuse Link (UMF)		
2	IS 60127(Part 1):1988 / IEC 60127-1:1988	Miniture fuses: Part 1 Definitions for miniature fuses and general requirements for miniature fuse links	Sep 2007	
3	IS 60127(Part 2):1989 / IEC 60127-2:1988	Ministure fuses : Part 2 Cartridge fuse links	Sep 2007	
DRAF	T STANDARDS ISSUED IN WIDE	CIRCULATION		
1	IS 8187:1976   IEC 269-3(1973)	D-type fuses	Mar 2006	1
2	IS 13703(Part 1):1993 / IEC 60269-1(1986)	Low voltage Fuses for voltages not exceeding 1000 V ac or 1500 V dc: Part 1 General requirements [superseding IS 9224 (Part 1):1979]	Mar 2004	
3	IS 13703(Part 2/Sec 1):1993 / IEC 60269-2(1986)	Low voltage fuses for voltages not exceeding 1000 V ac or 1500 V dc: Part 2 Fuses for use by authorized persons, Section 1 Supplementary requirements [superseding IS 9224 (Part 2):1979]	Mar 2004	
4	IS 13703(Part 4):1993 / IEC 60269-4(1986)	Low voltage fuses for voltages not exceeding 1000 V ac or 1500 V dc: Part 4 Supplementary requirements for fuse- links for the protection of semiconductor devices [superceding IS 9224 (Part 4):1980]	Mar 2004	
5	IS 60691:1993 / IEC 60691:1993	Thermal links - requirements and application guide	Sep 2007	

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

## ETD 40 HVDC POWER SYSTEMS

SI. No. IS Number/ DOC Number

**SCOPE -** To prepare standards and guidelines on equipment and performance of high- voltage d.c(HVDC) Transmission Systems

Title

			Date	Am
STA	NDARDS PUBLISHED			
1	IS 2165(Part 5):2005 / IEC 60071-5:2002	Insulation coordination:Part 5 Procedures for high-voltage direct current (HVDC) converter stations		
2	IS 14801:2000 / IEC 60633(1998)	Terminology for high voltage direct current (HVDC) transmission.	Jun 2005	
3	IS 14902(Part 1):2001 / IEC 60919-1(1988)	Performance of high-voltage d.c (HVDC) systems : Part 1 Steady state conditions.	Jan 2006	
4	IS 14902(Part 2):2001 / IEC 60919-2(1991)	Performance of high-voltage d.c (HVDC) systems : Part 2 Faults and switching.	Jan 2006	
5	IS 14902(Part 3):2005 / IEC 60919-3:1999	Performance of high -voltage direct current (HVDC) systems:Part 3 Dynamic conditions		
6	IS 14911(Part 1):2001 / IE 60700-1(1998)	Thyristor valves for high-voltage direct current (HVDC) power transmission: Part 1 Electrial Testing	Jan 2006	
7	IS 15597:2005 / IEC 61803:1999	Determination of power losses in high voltage direct current (HVDC) converter stations		
8	IS 15617:2005 / IEC 61954:2003	Power electronics for electrical transmission and distribution systems-Testing of thyristor valves for static var compensations		
DRA	AFT STANDARDS FORMULATED			
1	DOC.ETD 40(5884)	Thyristor valves for high-voltage direct current (HVDC) power transmission: Part 1 Electrial Testing [First Revision of IS 14911(Part 1)]		

Reaffirm

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED
| INDICATES EQUIVALENT STANDARDS

### **ETD 42 WIND TURBINES**

SCOPE - To prepare Indian standards for wind turbines that convert wind energy into electrical energy. These standards address design requirements, engineering integrity, measurement techniques and test procedures. Their purpose is to provide a basis for design, quality assurance and certification. The standards are concerned with all subsystems of wind turbines, such as mechanical and internal electrical systems, support structures and control and protection systems. They are intended to be used together with appropriate Indian Stanfdards.

SI. No.	IS Number/ DOC Number	Title	Reaffirm	
			Date	Am
DRAFT	STANDARDS ISSUED IN WIDE	CIRCULATION		
1	DOC.ETD 42(5985)	International electrotechnical vocabulary - Part 415: Wind turbine general systems		
2	DOC.ETD 42(5986)	Wind turbines - Part 2: Design requirements for small wind turbines		
3	DOC.ETD 42(5987)	Wind turbine generator systems - Part 13 Measurement of mechanical loads		
4	DOC.ETD 42(5988)	Wind turbine generator systems - Part 21 Measurement assesment power quality characteristics of grid connected wind turbines		
5	DOC.ETD 42(5989)	Wind turbine generator systems - Part 24 Lightning protection		

<sup>\*</sup> INDICATES STANDARDS UNDER REVISION / INDICATES DUAL NUMBER STANDARDS

<sup>\*\*</sup> INDICATES STANDARDS TO BE REVISED | INDICATES EQUIVALENT STANDARDS