

BUREAU OF INDIAN STANDARDS

Program of Work

ETD 13 : Equipment For Electrical Energy Measurement And Load Control

Scope: To prepare national standards for equipment for electrical energy measurement, tariff - and load control, customer information, payment, local and/or remote data exchange, using electromechanical and/or electronic, technologies for applications ranging from electrical energy generation to residential. The standards may include requirements and test methods to cover mechanical, environmental, electrical, safety, metrology dependability aspects as well as functional requirements and data models

Liaison: **IEC TC-13 (P):** *Electrical energy measurement and control* **IEC TC-13 (P):** *Electricity metering equipment* **IEC TC-13 (P):** *Data exchange for meter reading, tariff and load control* **IEC TC-13 (P):** *Smart Metering Functions and Processes* **IEC TC-13 (P):** *Electrical energy measurement and control* **IEC TC-13 (P):** *Electricity metering equipment* **IEC TC-13 (P):** *Data exchange for meter reading, tariff and load control* **IEC TC-13 (P):** *Smart Metering Functions and Processes*

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 11426 (Part 1):2006 <i>Reviewed In : 2016</i>	Alternating current precision electricity meters for testing purposes: Part 1 requirements for electro - Mechanical meters (First Revision)	April, 2016	-	Indigenous
2	IS 11448:2000 <i>Reviewed In : 2020</i>	Application guide for AC electricity meters (First Revision)	July, 2020	-	Indigenous
3	IS 12346:1999 IEC 60736 <i>Reviewed In : 2025</i> <i>IEC 60736 : 1982</i>	Testing equipment for AC electrical energy meters (First Revision)	January, 2025	-	Modified/Technically Equivalent
4	IS 13010:2002 IEC 60521 <i>Reviewed In : 2024</i> Reaffirmed but not taken up for revision <i>IEC 60521 : 1988</i>	AC watthour meters, class 0.5, 1 and 2 - Specification (First Revision)	June, 2024	2	Modified/Technically Equivalent
5	IS 13779:2020 <i>IEC 61036 (1996)</i>	ac STATIC WATTHOUR METERS CLASS 1 AND 2-Specefication		-	Modified/Technically Equivalent
6	IS 14697:2021	ac STATIC TRANSFORMER OPERATED WATTHOUR METERS CLASS 02 S AND 05 S AND VAR-HOUR METERS CLASS 02 S 05 S AND 10 S - SPECIFICATION First Revision		1	Indigenous
7	IS 15707:2006	Testing, evaluation, installation and	November, 2016	-	Indigenous

	Reviewed In : 2016	maintenance of a.c. electricity meters - Code of practice			
8	IS 15884:2024	ALTERNATING CURRENT DIRECT CONNECTED STATIC PREPAYMENT METERS FOR ACTIVE ENERGY CLASS 1 AND 2 SPECIFICATION		-	Indigenous
9	IS 15959 (Part 2):2016	Data Exchange for Electricity Meter Reading, Tariff and Load Control - Companion Specification: Part 2 Smart Meter Amendment No. 3	January, 2021	3	Indigenous
10	IS 15959:2011	Data Exchange for Electricity Meter - Reading, Tariff and Load Control - Companion Specification Part 1 Static Energy Meter Amendment No. 6	April, 2016	6	Indigenous
11	IS 15959 (Part 3):2017	Data Exchange for Electricity Meter Reading, Tariff and Load Control - Companion Specification: Part 3 Smart Meter (Transformer Operated kWh and kVARh, Class 0.2 S, 0.5 S and 1.0 S) Amendment No. 1		1	Indigenous
12	IS 16444:2015 Reviewed In : 2020	AC static direct connected wathour smart meter class 1 and 2 - Specification	August, 2020	3	Indigenous
13	IS 16444 (Part 2):2017	AC static transformer operated wathour and var - Hour smart meters, class 0.2 S, 0.5 S and 1.0 S: Part 2 specification transformer operated smart meters		1	Indigenous
14	IS 1766:1998 IEC 61038 Reviewed In : 2024 Reaffirmed but not taken up for revision IEC 1038 : 1990	Time switches for metering and load control (Second Revision)	January, 2024	-	Modified/Technically Equivalent
15	IS/IEC/TR 62051-1:2004 IEC/TR 62051-1 : 2004 IEC/TR 62051:Part 1 : 2004	Electricity metering - Data exchange for meter reading, tariff and load control - Glossary of terms: Part 1 terms related to data exchange with metering equipment using DLMS/cosem		-	Identical under single numbering
16	IS/IEC 62056-4-7):2017 17.220; 35.110; 91.140.50 17.220; 35.110; 91.140.50	Electricity Metering Data Exchange - The DLMS / COSEM Suite Part 4-7 DLMS / COSEM Transport Layer for IP Networks (First Revision)		-	Identical under dual numbering
17	IS/IEC 62056-21:2002 IEC 62056 : Part 21 : 2002 IEC 62056 - 21 : 2002	Electricity metering - Data exchange for meter reading, tariff and load control: Part 21 direct local data exchange		-	Identical under single numbering
18	IS/IEC 62056-42:2002 IEC 62056 : Part 42 :	Electricity metering - Data exchange for meter reading, tariff and load control: Part 42 physical		-	Identical under single numbering

	2002 IEC 62056 - 42 : 2002	layer services and procedures for connection - Oriented asynchronous data exchange			
19	IS/IEC 62056-46:2007 IEC 62056-46 : 2007	Electricity metering - Data exchange for meter reading, tariff and load control: Part 46 data link layer using HDLC protocol		-	Identical under single numbering
20	IS/IEC 62056-5-3):2017 IEC 62056-5-3 : 2017 IEC 62056-5-3	Electricity metering data exchange - The DLMS/COSEM suite: Part 5 - 3 DLMS/COSEM application layer (First Revision)		-	Identical under single numbering
21	IS/IEC 62056-6-2):2017 IEC 62056-6-2 : 2017 IEC 62056-6-2 : 2017	Electricity metering data exchange The DLMS/COSEM suite Part 6-2: COSEM interface classes first revision		-	Identical under single numbering
22	IS/IEC 62056-6-1):2017 IEC 62056-6-1 : 2017 IEC 62056-6-1 : 2017	Electricity Metering Data Exchange " The DLMS / COSEM Suite Part 6-1 Object Identification System (OBIS) (First Revision)		-	Identical under single numbering
23	IS/IEC/TR 62059-11:2002 IEC TR 62059-11:2002 IEC TR 62059-11:2002	Electricity Metering Equipment Dependability : Part 11 General concepts		-	Identical under single numbering
24	IS/IEC/TR 62059-21:2002 IEC TR 62059-21 : 2002 IEC TR 62059-21 : 2002	Electricity metering equipment Dependability : Part 21 Collection of meter dependability data from the field		-	Identical under single numbering
25	IS/IEC 62059-31-1):2008 IEC 62059-31-1:2008 IEC 62059-31-1:2008	Electricity metering equipment Dependability : Part 31-1 Accelerated reliability testing Elevated temperature and humidity		-	Identical under single numbering
26	IS/IEC 62059-32-1):2011 IEC 62059-32-1:2011 IEC 62059-32-1:2011	Electricity metering equipment Dependability : Part 32-1 Durability Testing of the stability of metrological characteristics by applying elevated temperature		-	Identical under single numbering
27	IS/IEC 62059-41:2006 IEC 62059-41:2006 IEC 62059-41:2006	Electricity metering equipment Dependability : Part 41 Reliability prediction		-	Identical under single numbering
28	IS 9792 (Part 1):1987 Reviewed In : 2024 Reaffirmed but not taken up for revision	Guide for testing, calibration and maintenance of AC electricity meters: Part 1 single phase whole current watt-hour meters, class 2.0 (First Revision)	January, 2024	-	Indigenous

Standards under Development

Projects Approved

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Preliminary Draft Standards

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Drafts Standards in WC Stage

SI. No.	Doc No.	Title
1	ETD 13 (26109)	Amendment No 01 to IS 13779 2020 a c Static Watthour Meters Class 1 and 2 - Specification

Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Finalized Draft Indian Standard

SI. No.	Doc No.	Title
1	ETD 13 (26164)	Data exchange for electricity meter reading tariff and load control - Companion specification Part 2 smart meter Amendment - 3

Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
1	ETD 13 (25722) Amendment of: IS 12346:1999	Testing Equipment for a c Electrical Energy Meters
2	ETD 13 (27546)	Data Exchange for Electricity Meter Reading Tariff and Load Control - Companion Specification Part 3 Smart Meter Transformer Operated kWh and kVARh Class 0 2 S 0 5 S and 1 0 S Amendment No 1
3	ETD 13 (27547)	Data Exchange for Electricity Meter Reading Tariff and Load Control - Companion Specification Part 2 Smart Meter Amendment No 3
4	ETD 13 (27548)	Data Exchange for Electricity Meter - Reading Tariff and Load Control - Companion Specification Part 1 Static Energy Meter Amendment No 6
5	ETD 13 (28473)	AMENDMENT NO 4 TO IS 16444 Part 1 2015 a c STATIC DIRECT CONNECTED WATTHOUR SMART METER CLASS 1 AND 2 - SPECIFICATION

Total Published Standards:28 Total Standards Under development:7

Aspect Wise Report

Product : 10
 Code of Practices : 4
 Methods of Test : 1
 Terminology : 3
 Dimensions : 0
 System Standard : 0
 Safety Standard : 0
 Others : 10
 Service Specification : 0
 Process Specification : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

Sl. No.	IS No. & Year	Title
1	IS 11426:1985 Reviewed In : 2002	Alternating Current Precision Kilowatt-hour Meters of Glass 0.5 for Testing Purposes
2	IS 14372:1996 Reviewed In : 2019 IEC 211 : 1966	Volt - Ampere hour meters for full power factor range - Specification
3	IS 14390:1996 Reviewed In : 2001	Var-hour meters Class 3.0 Superseding IS 722 Part 6 1980
4	IS 14415:1997 IEC 60211 Reviewed In : 2017 IEC 211 : 1966	Volt - Ampere hour meters for restricted power factor range - Specification
5	IS 14451 (Part 1):1998 Reviewed In : 2018 IEC Pub. 338 : 1970	Telemetry for consumption and demands Part 1 impulse transmitting and receiving devices
6	IS 14451 (Part 2):1999 Reviewed In : 2014	Telemetry for consumption and demands Part 2 direct digital transfer of meter values
7	IS/IEC 62056-47:2006 IEC 62056 : Part 47 Reviewed In : 2015 IEC 62056 - 47 : 2006	Electricity metering - Data exchange for meter reading tariff and load control Part 47 cosem transport layers for IPv4 networks
8	IS/IEC 62056-53:2006 IEC 62056 : Part 53 : 2006 Reviewed In : 2015 IEC 62056 - 53 : 2006	Electricity metering - Data exchange for meter reading tariff and load control Part 53 cosem application layer
9	IS/IEC 62056-61:2006 Reviewed In : 2015 IEC 62056-6-1 : 2017	Electricity metering - Data exchange for meter reading tariff and load control Part 61 object identification system OBIS
10	IS/IEC 62056-62:2006 Reviewed In : 2015 IEC 62056-6-2 : 2017	Electricity metering - Data exchange for meter reading tariff and load control Part 62 interface classes
11	IS 722 (Part 1):1986 Reviewed In : 1991	ac Electricity Meters - Part 1 General Requirements and Tests
12	IS 722 (Part 2):1977 Reviewed In : 1991	ac Electricity Meters - Part II Single Phase Whole Current Watthour Meters Class 2
13	IS 722 (Part 3):1977 Reviewed In : 1991	AC electricity meters Part 3 Three-phase whole current and transformer operated and single-phase transformer operated watt-hour meters class 2
14	IS 722 (Part 4):1966	AC electricity meters Part 4 Three phase watthour meters with maximum demand indicator
15	IS 722 (Part 5):1980	AC electricity meters Part 5 Volt-ampere hour meters for restricted power factor range class 3.5
16	IS 722 (Part 6):1980	AC electricity meters Part 6 Var-hour meters class 2.5
17	IS 722 (Part 7/Sec 1):1987	AC electricity meters Part 7 Volt-ampere hour meters for full power factor range Section 1 General requirements
18	IS 722 (Part 7/Sec 2):1987	AC electricity meters Part 7 Volt-ampere hour meters for full power factor range Section 2 Vector sum VAh meters
19	IS 722 (Part 7/Sec 3):1987	AC electricity meters Part 7 Volt-ampere hour meters for full power factor range Section 3 Arithmetic sum VAh meters
20	IS 722 (Part 8):1972 Reviewed In : 1991	AC electricity meters Part 8 Single-phase 2-wire whole current watthour meter class 1.0
21	IS 722 (Part 9):1972 Reviewed In : 1991	AC electricity meters Part 9 Three-phase whole current and transformer operated watthour meters and single-phase two-wire transformer operated watthour meters class 1.0
22	IS 7700:1975 Reviewed In : 2010	Quadrature phase-shifting voltage transformers

23	IS 8530:1977 IEC 60211 Reviewed In : 2010	Maximum demand indicators class 1
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Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
1	IS 11426 (Part 1):2006 Reviewed In : 2016	Alternating current precision electricity meters for testing purposes Part 1 requirements for electro - Mechanical meters First Revision
2	IS 12346:1999 IEC 60736 Reviewed In : 2025 IEC 60736 : 1982	Testing equipment for AC electrical energy meters First Revision
3	IS 13010:2002 IEC 60521 Reviewed In : 2024 Reaffirmed but not taken up for revision IEC 60521 : 1988	AC wathour meters class 0 5 1 and 2 - Specification First Revision
4	IS 13779:2020 ISO/TS 18614 : 2016	ac STATIC WATTHOUR METERS CLASS 1 AND 2-Specefication
5	IS 14697:2021 IEC 60947-6-2: 2020	ac STATIC TRANSFORMER OPERATED WATTHOUR METERS CLASS 02 S AND 05 S AND VAR-HOUR METERS CLASS 02 S 05 S AND 10 S - SPECIFICATION First Revision
6	IS 15884:2024	ALTERNATING CURRENT DIRECT CONNECTED STATIC PREPAYMENT METERS FOR ACTIVE ENERGY CLASS 1 AND 2 SPECIFICATION
7	IS 15959:2011	Data Exchange for Electricity Meter - Reading Tariff and Load Control - Companion Specification Part 1 Static Energy Meter Amendment No 6
8	IS 16444:2015 Reviewed In : 2020	AC static direct connected wathour smart meter class 1 and 2 - Specification
9	IS 16444 (Part 2):2017	AC static transformer operated wathour and var - Hour smart meters class 0 2 S 0 5 S and 1 0 S Part 2 specification transformer operated smart meters
10	IS 1766:1998 IEC 61038 Reviewed In : 2024 Reaffirmed but not taken up for revision IEC 1038 : 1990	Time switches for metering and load control Second Revision