

BUREAU OF INDIAN STANDARDS

Program of Work

ETD 11 : Secondary Cells And Batteries

Scope: To prepare standards for all rechargeable cells and batteries (starter batteries, stationary batteries, traction batteries etc.)

Liaison: **IEC TC-21 (P): Secondary cells and batteries IEC TC-21 SC-21A (P): Secondary cells and batteries containing alkaline or other non-acid electrolytes**

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 10893 : 1984 Reviewed In : 2018	Specification for sealed nickel cadmium button type rechargeable single cells	December, 2018	-	Indigenous
2	IS 10918 : 1984 Reviewed In : 2018 Open nickel cadmium prismatic rechargeable cells. International Electrotechnical Commission. Specifici	Specification for vented type nickel cadmium batteries	December, 2018	2	Modified/Technically Equivalent
3	IS 1146 : 1981 Reviewed In : 2024	Specification for rubber and plastics containers for lead - Acid storage batteries (Second Revision)	November, 2024	3	Indigenous
4	IS 12013 : 1987 Reviewed In : 2017 Reaffirmed but not taken up for revision	Specification for lead acid batteries for 110 volts train lighting system with monobloc containers	September, 2017	-	Indigenous
5	IS 13300 : 1992 Reviewed In : 2017 BS3G 205 : 1983 Specification for lead-acid and nickel-cadmium rechargeable batteries. British Stand	Nickel cadmium aircraft batteries (Aerobatic Andnon - Aerobatic) - Specification	September, 2017	-	Modified/Technically Equivalent
6	IS 13315 : 1992 Reviewed In : 2017 IEC Pub 623 : 1983 Open nickel-cadmium prismatic rechargeable cells - Part 1: General requirements a	Nickel cadmium batteries for electric locomotives - Specification	September, 2017	-	Modified/Technically Equivalent
7	IS 13369 : 2024	Stationary Lead-Acid Batteries		-	Indigenous

		with Tubular Positive Plates in Monobloc Container “ Specification (First Revision)			
8	IS 13369 : 1992 Reviewed In : 2017	Stationary lead - Acid batteries (With Tubular Positive Plates) in monobloc container - Specification	September, 2017	3	Indigenous
9	IS 13514 : 2015 IEC 61982 : 2012 Reviewed In : 2024 IEC 61982 : 2012	Secondary batteries (Except Lithium) for the propulsion of electric road vehicles - Performance and endurance tests (First Revision)	August, 2024	-	Identical under dual numbering
10	IS 13514 (Part 4) : 2018 IEC 61982-4 : 2015 Reviewed In : 2024 IEC 61982-4 : 2015	Secondary Batteries (Except Lithium) for the Propulsion of Electric Road Vehicles Part 4 Safety Requirements of Nickel-Metal Hydride Cells and Modules	August, 2024	-	Identical under dual numbering
11	IS 13568 : 1992 Reviewed In : 2024	Lead acid light weight storage batteries for motor cycles and similar vehicles fitted with ac circuitry - Specification	August, 2024	1	Indigenous
12	IS 13595 : 1992 Reviewed In : 2017 HAL Nasik Specification TS/IND/72 117 A/C Storage battery 15-STS-45B and 15-SSTS-45B b) JSS 55555 E	Silver oxide zinc batteries for aircraft - Specification	September, 2017	-	Modified/Technically Equivalent
13	IS 14217 : 1994 Reviewed In : 2018 Reaffirmed but not taken up for revision BS 4945 : 1973	Miners cap lamp batteries (Alkaline Type) - Specification	December, 2018	-	Modified/Technically Equivalent
14	IS 14218 : 1994 Reviewed In : 2018	Sealed cylindrical type rechargeable nickel cadmium cells - Specification	December, 2018	-	Indigenous
15	IS 14257 : 2019 NULL Reviewed In : 2024	Lead - Acid storage batteries for motor vehicles with light weight and high cranking performance - Specification (First Revision)	August, 2024	-	Indigenous
16	IS 14782 : 2000 Reviewed In : 2020	Code of practice for maintenance and testing of large lead acid batteries for generating stations and substations	May, 2020	-	Indigenous
17	IS 15549 : 2005 Reviewed In : 2020 a) IEC 60896-2 (1995) Stationary lead acid batteries - General requirements and test methods - Par	Stationary valve regulated lead acid batteries - Specification	June, 2020	3	Modified/Technically Equivalent
18	IS 15767 : 2008 IEE 62259 : 2003 Reviewed In : 2024 IEC 62259 : 2003	Secondary cells and batteries containing alkaline or other non - Acid electrolytes - Nickel - Cadmium prismatic secondary single cells with partial gas recombination	August, 2024	-	Identical under dual numbering

19	IS 16046 (Part 1) : 2018 IEC 62133-1 : 2017 Reviewed In : 2024 IEC 62133-1 : 2017	Secondary Cells and Batteries Containing Alkaline or Other Non- Acid Electrolytes - Safety Requirements for Portable Sealed Secondary Cells and for Batteries Made from Them for Use in Portable Applications Part 1 Nickel Systems (Second Revision)	August, 2024	1	Identical under dual numbering
20	IS 16046 (Part 2) : 2018 IEC 62133-2 : 2017 Reviewed In : 2024 IEC 62133-2 : 2017	Secondary Cells and Batteries Containing Alkaline or Other Non- Acid Electrolytes - Safety Requirements for Portable Sealed Secondary Cells and for Batteries Made from Them for Use in Portable Applications Part 2 Lithium Systems (Second Revision)	August, 2024	1	Identical under dual numbering
21	IS 16047 (Part 3) : 2018 Reviewed In : 2024 IEC 61960-3:2017	Secondary Cells and Batteries Containing Alkaline or Other Non- Acid Electrolytes - Secondary Lithium Cells and Batteries for Portable Applications Part 3 Prismatic and Cylindrical Lithium Secondary Cells, and Batteries Made From Them (First Revision)	September, 2024	-	Identical under dual numbering
22	IS 16048 (Part 1) : 2021 61951-1 61951-1	SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON- ACID ELECTROLYTES SECONDARY SEALED CELLS AND BATTERIES FOR PORTABLE APPLICATIONS PART 1: NICKEL-CADMIUM		-	Identical under dual numbering
23	IS 16048 (Part 2) : 2021 61951-2 : 2017 61951-2 : 2017	SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON- ACID ELECTROLYTES SECONDARY SEALED CELLS AND BATTERIES FOR PORTABLE APPLICATIONS PART 2: NICKEL-METAL HYDRIDE		-	Identical under dual numbering
24	IS 16049 : 2013 IEC 60622 : 2002 Reviewed In : 2023 IEC 60622 : 2002	Secondary cells and batteries containing alkaline or other non - Acid electrolytes - Sealed nickel - Cadmium prismatic rechargeable single cells	May, 2023	-	Identical under dual numbering
25	IS 16220 (Part 1) : 2015 IEC 61056-1 : 2012 Reviewed In : 2020 IEC 61056-1 : 2012	General purpose lead - Acid batteries (Valve - Regulated Types): Part 1 general requirements, functional characteristics - Methods of test	August, 2020	-	Identical under dual numbering
26	IS 16220 (Part 2) : 2017 IEC 61056-2 : 2012 Reviewed In : 2024 IEC 61056-2 : 2012	General Purpose Lead-Acid Batteries (Valve-Regulated Types) Part 2 Dimensions, Terminals and Marking	August, 2024	-	Identical under dual numbering

27	IS 16270 : 2014 Reviewed In : 2019	Secondary cells and batteries for solar photovoltaic application - General requirements and methods of test		-	Indigenous
28	IS 16270 : 2023	Secondary cells and batteries for solar photovoltaic application - General requirements and methods of test		-	Indigenous
29	IS 16284 : 2018 IEC 62675 : 2014 IEC 62675 : 2014	Secondary Cells and Batteries Containing Alkaline or Other Non - Acid Electrolytes - Sealed Nickel - Metal Hydride Prismatic Rechargeable Single Cells		-	Identical under dual numbering
30	IS 16373 : 2015 Reviewed In : 2020 IEC 60095-1 (2006)	Lead acid storage batteries for motor vehicles - Valve regulated type	August, 2020	1	Modified/Technically Equivalent
31	IS 1651 : 2013 Reviewed In : 2018	Stationary cells and batteries, lead - Acid type (With Tubular Positive Plates) - Specification (Fourth Revision)		-	Indigenous
32	IS 1652 : 2013 Reviewed In : 2024	Stationary cells and batteries, lead - Acid type with plante positive plates - Specification (Fourth Revision)	August, 2024	-	Indigenous
33	IS 16805 : 2018 IEC 62619 : 2017 Reviewed In : 2024 IEC 62619 : 2017	Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Safety Requirements for Secondary Lithium Cells and Batteries, for Use in Industrial Applications	September, 2024	-	Identical under dual numbering
34	IS 16822 : 2019 IEC 62620 : 2014 Reviewed In : 2024 IEC 62620:2014	Secondary cells and batteries containing alkaline or other non - Acid electrolytes - Secondary lithium cells and batteries for use in industrial applications	August, 2024	-	Identical under dual numbering
35	IS 16823 : 2019 IEC 61959 : 2004 Reviewed In : 2024 IEC 61959 : 2004	Secondary cells and batteries containing alkaline or other non - acid electrolytes - Mechanical tests for sealed portable secondary cells and batteries	August, 2024	-	Identical under dual numbering
36	IS 16825 : 2018 IEC TR 62060 IEC TR 62060:2001	Secondary Cells and Batteries - Monitoring of Lead Acid Stationary Batteries - User Guide		-	Identical under dual numbering
37	IS 16827 : 2018 ISO/IEC PAS 16898 : 2012 ISO/IEC 16898 : 201	Electrically propelled road vehicles - Dimensions and designation of secondary lithium - Ion cells		-	Identical under dual numbering
38	IS 16893 (Part 1) : 2018 IEC 62660-1 : 2010 Reviewed In : 2024 IEC 62660-1: 2010	Secondary lithium - Ion cells for the propulsion of electric road vehicles: Part 1 performance testing	August, 2024	-	Identical under dual numbering
39	IS 16893 (Part 2) : 2018 IEC 62660-2 : 2010 Reviewed In : 2024 IEC 62660-2: 2010	Secondary lithium - Ion cells for the propulsion of electric road vehicles: Part 2 reliability and abuse testing	August, 2024	-	Identical under dual numbering

40	IS 16893 (Part 3) : 2018 IEC 62660-3 : 2016 Reviewed In : 2024 IEC 62660-3 : 2016	Secondary Lithium - Ion Cells For the Propulsion of Electric Road Vehicles Part 3 Safety Requirements	August, 2024	-	Identical under dual numbering
41	IS 16894 (Part 1) : 2018 IEC 62485-1 : 2015 Reviewed In : 2024 IEC 62485-1:2015	Safety requirements for secondary batteries and battery installations: Part 1 general safety information	August, 2024	-	Identical under dual numbering
42	IS 16894 (Part 2) : 2018 IEC 62485-2 : 2010 Reviewed In : 2024 IEC 62485-2:2010	Safety requirements for secondary batteries and battery installations: Part 2 stationary batteries	September, 2024	-	Identical under dual numbering
43	IS 16894 (Part 3) : 2018 IEC 62485-3 : 2014 Reviewed In : 2024 IEC 62485-3:2014	Safety requirements for secondary batteries and battery installations: Part 3 traction batteries	September, 2024	-	Identical under dual numbering
44	IS 16894 (Part 4) : 2018 IEC 62485-4 : 2015 Reviewed In : 2024 IEC 62485-4:2015	Safety Requirements for Secondary Batteries and Battery Installations Part 4 Valve - Regulated Lead - Acid Batteries for use in Portable Appliances	September, 2024	-	Identical under dual numbering
45	IS 17882 : 2022	Methods of test for measurement of Energy density and Cycle life of Advanced Chemistry Cells ACCs		-	Indigenous
46	IS 2512 : 1978 Reviewed In : 2018 Reaffirmed but not taken up for revision BS 4945 : 1973	Specification for miners cap - Lamp batteries (Lead - Acid Type) (First Revision)	December, 2018	4	Modified/Technically Equivalent
47	IS 5154 (Part 1) : 2013 IEC 60254-1 : 2005 Reviewed In : 2024 IEC 60254-1 : 2005	Lead - Acid traction batteries: Part 1 general requirements and methods of test (Second Revision)	September, 2024	-	Identical under dual numbering
48	IS 5154 (Part 2) : 2013 IEC 60254-2 : 2008 Reviewed In : 2024 IEC 60254-2 : 2008	Lead - Acid traction batteries: Part 2 dimensions of cells and terminals and marking of polarity on cells (Second Revision)	September, 2024	-	Identical under dual numbering
49	IS 6071 : 1986 Reviewed In : 2024	Specification for synthetic separators for lead - Acid batteries (First Revision)	August, 2024	2	Indigenous
50	IS/IEC 62282-3-100) : 2019 IEC 62282-3-100: 2019 IEC 62282-3-100: 2019	Fuel Cell Technologies Part 3 Stationary Fuel Cell Power Systems Section 100 Safety		-	Identical under single numbering
51	IS 6304 : 1992 Reviewed In : 2024	Stationary batteries - Lead - Acid type - With pasted positive plates - Specification (Second Revision)	August, 2024	1	Indigenous
52	IS 6304 : 2024	Stationary Batteries "Lead-Acid Batteries with Pasted Positive Plates" Specification (Third Revision)		-	Indigenous

53	IS 6848 : 1979 Reviewed In : 2018 Reaffirmed but not taken up for revision IEC Publication : 77 * (1968)	Specification for lead - Acid batteries for train lighting and airconditioning services (First Revision)	December, 2018	3	Identical under dual numbering
54	IS 7624 : 1990 Reviewed In : 2018 Reaffirmed but not taken up for revision	Lead - Acid starter batteries for diesel - locomotives and rail cars - Specification (First Revision)	December, 2018	-	Indigenous
55	IS 7660 : 1988 Reviewed In : 2018 Reaffirmed but not taken up for revision	Specification for lead - Acid batteries for electric locomotives and electrical multiple units (First Revision)	December, 2018	-	Indigenous
56	IS 8320 : 2000 Reviewed In : 2020	General requirements and methods of tests for lead - Acid storage batteries (Second Revision)	July, 2020	-	Indigenous
57	IS 9814 : 1981 Reviewed In : 2024	Specification for lead - Acid storage batteries for marine use	November, 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
1	ETD 11 (26916) Revision of: IS 17882:2022	Measurement of Cycle Life and Energy Density for Advanced Chemistry Cells Method of Tests First Revision

Drafts Standards in WC Stage

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

Draft Standards Completed WC Stage

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

Finalized Draft Indian Standard

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

Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
1	ETD 11 (25991)	Stationary cells and batteries lead - Acid type with plante positive plates - Specification Fourth Revision Amendment - 1
2	ETD 11 (26093)	Secondary Cells and Batteries - Marking Symbols for Identification of Their Chemistry
3	ETD 11 (26094)	Flow Battery Energy Systems for Stationary Applications Part 2-2 Safety Requirements

4	ETD 11 (26095)	Flow Battery Energy Systems for Stationary Applications Part 2-1 Performance General Requirements and Test Methods
5	ETD 11 (26097)	Flow Battery Energy Systems for Stationary Applications Part 1 Terminology and General Aspects

Total Published Standards:53 Total Standards Under development:6

Aspect Wise Report

Product : 40
 Code of Practices : 2
 Methods of Test : 5
 Terminology : 1
 Dimensions : 3
 System Standard : 0
 Safety Standard : 0
 Others : 3
 Service Specification : 0
 Process Specification : 0
 Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 1145 : 1980 Reviewed In : 2014	Lead-acid storage batteries for motor cycles auto-rickshaws and similar vehicles
2	IS 12956 : 1990 Reviewed In : 2002	Sealed cylindrical type rechargeable nickel cadmium cells Regular standard being prepared
3	IS 16046 : 2015 IEC 62133 : 2012 IEC 62133 : 2012	Secondary Cells and Batteries Containing Alkaline or Other Non-acid Electrolytes - Safety Requirements for Portable Sealed Secondary Cells and for Batteries Made from them for Use in Portable Applications First Revision
4	IS 16047 : 2012 IEC 61960 : 2011 Reviewed In : 2017 IEC 61960 : 2011	Secondary Cells and Batteries containing Alkaline or other non-acid Electrolytes - Secondary Lithium Cells and Batteries for Portable Applications
5	IS 1846 : 1992	Lead-acid aircraft batteries aerobatic and non-aerobatic
6	IS 395 : 1962	Lead-acid storage battery for motor vehicles
7	IS 5154 : 1980 IEC 254 Reviewed In : 2008	Lead-acid Traction Batteries
8	IS 541 : 1954	Stationary accumulators lead-acid type
9	IS 7372 : 1995 Reviewed In : 2017	Lead - Acid storage batteries for motor vehicles - Specification First Revision
10	IS 985 : 1962	Lead-acid storage batteries for motor vehicles special

Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
1	IS 10893 : 1984 Reviewed In : 2018	Specification for sealed nickel cadmium button type rechargeable single cells
2	IS 10918 : 1984 Reviewed In : 2018 Open nickel cadmium prismatic rechargeable cells. International	Specification for vented type nickel cadmium batteries

	Electrotechnical Commission. Specifici	
3	IS 1146 : 1981 Reviewed In : 2024	Specification for rubber and plastics containers for lead - Acid storage batteries Second Revision
4	IS 12013 : 1987 Reviewed In : 2017 Reaffirmed but not taken up for revision	Specification for lead acid batteries for 110 volts train lighting system with monobloc containers
5	IS 13300 : 1992 Reviewed In : 2017 BS3G 205 : 1983 Specification for lead-acid and nickel-cadmium rechargeable batteries. British Stand	Nickel cadmium aircraft batteries Aerobatic Andnon - Aerobatic - Specification
6	IS 13315 : 1992 Reviewed In : 2017 IEC Pub 623 : 1983 Open nickel-cadmium prismatic rechargeable cells - Part 1: General requirements a	Nickel cadmium batteries for electric locomotives - Specification
7	IS 13369 : 2024	Stationary Lead-Acid Batteries with Tubular Positive Plates in Monobloc Container Specification First Revision
8	IS 13514 : 2015 IEC 61982 : 2012 Reviewed In : 2024 IEC 61982 : 2012	Secondary batteries Except Lithium for the propulsion of electric road vehicles - Performance and endurance tests First Revision
9	IS 13514 (Part 4) : 2018 IEC 61982-4 : 2015 Reviewed In : 2024 IEC 61982-4 : 2015	Secondary Batteries Except Lithium for the Propulsion of Electric Road Vehicles Part 4 Safety Requirements of Nickel-Metal Hydride Cells and Modules
10	IS 13568 : 1992 Reviewed In : 2024	Lead acid light weight storage batteries for motor cycles and similar vehicles fitted with ac circuitry - Specification
11	IS 13595 : 1992 Reviewed In : 2017 HAL Nasik Specification TS/IND/72 117 A/C Storage battery 15-STS-45B and 15-SSTS-45B b) JSS 55555 E	Silver oxide zinc batteries for aircraft - Specification
12	IS 14217 : 1994 Reviewed In : 2018 Reaffirmed but not taken up for revision BS 4945 : 1973	Miners cap lamp batteries Alkaline Type - Specification
13	IS 14218 : 1994 Reviewed In : 2018	Sealed cylindrical type rechargeable nickel cadmium cells - Specification
14	IS 14257 : 2019 NULL Reviewed In : 2024	Lead - Acid storage batteries for motor vehicles with light weight and high cranking performance - Specification First Revision
15	IS 15549 : 2005 Reviewed In : 2020 a) IEC 60896-2 (1995) Stationary lead acid batteries - General requirements and test methods - Par	Stationary valve regulated lead acid batteries - Specification
16	IS 15767 : 2008 IEe 62259 : 2003 Reviewed In : 2024 IEC 62259 : 2003	Secondary cells and baterialies containing alkaline or other non - Acid electrolytes - Nickel - Cadmium prismatic secondary single cells with partial gas recombination
17	IS 16046 (Part 1) : 2018	Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Safety

	IEC 62133-1 : 2017 Reviewed In : 2024 IEC 62133-1 : 2017	Requirements for Portable Sealed Secondary Cells and for Batteries Made from Them for Use in Portable Applications Part 1 Nickel Systems Second Revision
18	IS 16046 (Part 2) : 2018 IEC 62133-2 : 2017 Reviewed In : 2024 IEC 62133-2 : 2017	Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Safety Requirements for Portable Sealed Secondary Cells and for Batteries Made from Them for Use in Portable Applications Part 2 Lithium Systems Second Revision
19	IS 16047 (Part 3) : 2018 Reviewed In : 2024 IEC 61960-3:2017	Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Secondary Lithium Cells and Batteries for Portable Applications Part 3 Prismatic and Cylindrical Lithium Secondary Cells and Batteries Made From Them First Revision
20	IS 16048 (Part 1) : 2021 61951-1 ISO 12647-9: 2021	SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES SECONDARY SEALED CELLS AND BATTERIES FOR PORTABLE APPLICATIONS PART 1 NICKEL-CADMIUM
21	IS 16048 (Part 2) : 2021 61951-2 : 2017 ISO 25539:2020	SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES SECONDARY SEALED CELLS AND BATTERIES FOR PORTABLE APPLICATIONS PART 2 NICKEL-METAL HYDRIDE
22	IS 16049 : 2013 IEC 60622 : 2002 Reviewed In : 2023 IEC 60622 : 2002	Secondary cells and batteries containing alkaline or other non - Acid electrolytes - Sealed nickel - Cadmium prismatic rechargeable single cells
23	IS 16270 : 2023	Secondary cells and batteries for solar photovoltaic application - General requirements and methods of test
24	IS 16284 : 2018 IEC 62675 : 2014 IEC 62675 : 2014	Secondary Cells and Batteries Containing Alkaline or Other Non - Acid Electrolytes - Sealed Nickel - Metal Hydride Prismatic Rechargeable Single Cells
25	IS 16373 : 2015 Reviewed In : 2020 IEC 60095-1 (2006)	Lead acid storage batteries for motor vehicles - Valve regulated type
26	IS 1651 : 2013 Reviewed In : 2018	Stationary cells and batteries lead - Acid type With Tubular Positive Plates - Specification Fourth Revision
27	IS 1652 : 2013 Reviewed In : 2024	Stationary cells and batteries lead - Acid type with plante positive plates - Specification Fourth Revision
28	IS 16805 : 2018 IEC 62619 : 2017 Reviewed In : 2024 IEC 62619 : 2017	Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Safety Requirements for Secondary Lithium Cells and Batteries for Use in Industrial Applications
29	IS 16822 : 2019 IEC 62620 : 2014 Reviewed In : 2024 IEC 62620:2014	Secondary cells and batteries containing alkaline or other non - Acid electrolytes - Secondary lithium cells and batteries for use in industrial applications
30	IS 16893 (Part 3) : 2018 IEC 62660-3 : 2016 Reviewed In : 2024 IEC 62660-3 : 2016	Secondary Lithium - Ion Cells For the Propulsion of Electric Road Vehicles Part 3 Safety Requirements
31	IS 16894 (Part 2) : 2018 IEC 62485-2 : 2010 Reviewed In : 2024 IEC 62485-2:2010	Safety requirements for secondary batteries and battery installations Part 2 stationary batteries
32	IS 16894 (Part 3) : 2018 IEC 62485-3 : 2014 Reviewed In : 2024 IEC 62485-3:2014	Safety requirements for secondary batteries and battery installations Part 3 traction batteries
33	IS 16894 (Part 4) : 2018 IEC 62485-4 : 2015 Reviewed In : 2024 IEC 62485-4:2015	Safety Requirements for Secondary Batteries and Battery Installations Part 4 Valve - Regulated Lead - Acid Batteries for use in Portable Appliances
34	IS 5154 (Part 1) : 2013 IEC 60254-1 : 2005	Lead - Acid traction batteries Part 1 general requirements and methods of test Second Revision

	Reviewed In : 2024 IEC 60254-1 : 2005	
35	IS/IEC 62282-3-100) : 2019 IEC 62282-3-100: 2019	Fuel Cell Technologies Part 3 Stationary Fuel Cell Power Systems Section 100 Safety
36	IS 6304 : 2024	Stationary Batteries Lead-Acid Batteries with Pasted Positive Plates Specification Third Revision
37	IS 6848 : 1979 Reviewed In : 2018 Reaffirmed but not taken up for revision IEC Publication : 77 * (1968)	Specification for lead - Acid batteries for train lighting and airconditioning services First Revision
38	IS 7624 : 1990 Reviewed In : 2018 Reaffirmed but not taken up for revision	Lead - Acid starter batteries for diesel - locomotives and rail cars - Specification First Revision
39	IS 7660 : 1988 Reviewed In : 2018 Reaffirmed but not taken up for revision	Specification for lead - Acid batteries for electric locomotives and electrical multiple units First Revision
40	IS 9814 : 1981 Reviewed In : 2024	Specification for lead - Acid storage batteries for marine use