

BUREAU OF INDIAN STANDARDS

Program of Work

ETD 22 : Electrical Apparatus For Explosive Atmosphere

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.

Liaison: **IEC TC-31 (P): Equipment for explosive atmospheres IEC TC-31 SC-31G (P): Intrinsically-safe apparatus IEC TC-31 SC-31J (P): Classification of hazardous areas and installation requirements IEC TC-31 SC-31M (P): Non-electrical equipment and protective systems for explosive atmospheres**

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 11333:1985 Reviewed In : 2021 BS 5067 : 1974	Specification for flameproof dry type transformers for use in mines	January, 2021	-	Indigenous
2	IS 16724:2018 IEC 60079-14 : 2013 Reviewed In : 2023 IEC 60079-14 : 2013	Explosive atmospheres - Electrical installations design, selection and erection	June, 2023	-	Modified/Technically Equivalent
3	IS 2772:1982 Reviewed In : 2022	Specification for non - Flameproof mining transformers for use below ground (First Revision)	September, 2022	-	Indigenous
4	IS 4051:2025	Installation and Maintenance of Electrical Equipment in Mines - Code of Practice (First Revision)		-	Indigenous
5	IS 4051:1967 Reviewed In : 2022	Code of practice for installation and maintenance of electrical equipment in mines	June, 2022	1	Indigenous
6	IS 5572:2009 IEC 60079-10:2002 Reviewed In : 2024 IEC 60079-10: 2002	Classification of hazardous areas (Other Than Mines) having flammable gases and vapours for electrical installation (Third Revision)	January, 2024	1	Modified/Technically Equivalent
7	IS/IEC 60079-0:2017 IEC 60079-0 : 2017 IEC 60079-0 : 2017	Explosive Atmospheres Part 0 Equipment — General Requirements (Third Revision)	-	-	Identical under single numbering
8	IS/IEC 60079-1:2014 IEC 60079-1 : 2014 Reviewed In : 2024 IEC 60079-1:2014	Explosive Atmospheres - Part 1 : Equipment Protection by Flameproof Enclosures "d"	July, 2024	-	Identical under single numbering
9	IS/IEC 60079-2:2014 IEC 60079-2 : 2014 Reviewed In : 2022	Explosive atmospheres: Part 2 equipment protection by pressurized enclosure "p" (First Revision)	September, 2022	1	Identical under single numbering

	IEC 60079-2:2014				
10	IS/IEC 60079-5:2015 IEC 60079-5:2015+ AMD1:2022 IEC 60079-5:2015+ AMD1:2022	Explosive Atmospheres Part 5 Equipment Protection by Powder Filling "e" (Second Revision)		-	Identical under single numbering
11	IS/IEC 60079-6:2020 IEC 60079-6:2020(Ed 4.1) IEC 60079-6:2020(Ed 4.1)	Explosive atmospheres - Part 6: Equipment protection by liquid immersion "o" (Second Revision)		-	Identical under single numbering
12	IS/IEC 60079-7:2017 IEC 60079-7:2017 (Ed 5.1) IEC 60079-7:2017 (Ed 5.1)	Explosive atmospheres - Part 7: Equipment protection by increased safety "e" (Second Revision)		-	Identical under single numbering
13	IS/IEC 60079-10-2:2015 IEC 60079-10-2 : 2015 Reviewed In : 2022 IEC 60079 : Part 10 : Sec 2 : 2015	Explosive atmospheres: Part 10 classification of areas: Sec 2 explosive dust atmospheres (First Revision)	December, 2022	-	Identical under single numbering
14	IS/IEC 60079-11:2023 IEC 60079-11:2023 IEC 60079-11:2023	Explosive Atmospheres Part 11 Equipment Protection by Intrinsic Safety "e" (Second Revision)		-	Identical under single numbering
15	IS/IEC 60079-13:2017 IEC 60079-13 : 2017 IEC 60079-13 : 2017	Explosive Atmospheres Part 13 Equipment Protection by Pressurized Room "p" and Artificially Ventilated Room "v" (First Revision)		-	Identical under single numbering
16	IS/IEC 60079-15:2017 IEC 60079-15:2017 IEC 60079-15 : 2017	EXPLOSIVE ATMOSPHERES PART 15 EQUIPMENT PROTECTION BY TYPE OF PROTECTION "n" (Second Revision)		-	Identical under single numbering
17	IS/IEC 60079-16:1990 IEC 60079-16 : 1990 Reviewed In : 2023 IEC 60079-16:1990	Electrical apparatus for explosive gas atmospheres: Part 16 artificial ventilation for the protection of analyzer(S) houses	April, 2023	-	Identical under single numbering
18	IS/IEC 60079-17:2013 IEC 60079-17 : 2013 IEC 60079-17 : 2013	Explosive atmospheres: Part 17 electrical installations inspection and maintenance (First Revision)	December, 2022	-	Identical under single numbering
19	IS/IEC 60079-18:2014 IEC 60079-18 : 2014 IEC 60079-18:2014	Explosive atmospheres: Part 18 equipment protection by encapsulation "m" (Second Revision)	December, 2022	1	Identical under single numbering
20	IS/IEC 60079-19:2019 IEC 60079-19:2019	Explosive atmospheres - Part 19: Equipment repair overhaul and reclamation (Second Revision)		-	Identical under single numbering

	IEC 60079-19:2019				
21	IS/IEC 60079-25:2020 IEC 60079-25:2020 IEC 60079-25:2020	Explosive atmospheres - Part 25: Intrinsically safe electrical systems (Second Revision)		-	Identical under single numbering
22	IS/IEC 60079-26:2021 IEC 60079-26:2021 IEC 60079-26:2021	Explosive atmospheres - Part 26: Equipment with Separation Elements or combined Levels of Protection (Second Revision)		-	Identical under single numbering
23	IS/IEC 60079-28:2015 IEC 60079-28 : 2015 Reviewed In : 2023 IEC 60079-28:2015	Explosive atmospheres: Part 28 protection of equipment and transmission systems using optical radiation (First Revision)	October, 2023	1	Identical under single numbering
24	IS/IEC 60079-29-3):2014 IEC 60079-29-3:2014 IEC 60079-29-3:2014	Explosive Atmospheres Part 29 Gas Detectors Section 3 Guidance on Functional Safety of Fixed Gas Detection Systems		-	Identical under single numbering
25	IS/IEC 60079-29-4:2009 IEC 60079-29-4 : 2009 Reviewed In : 2024 IEC 60079-29-4:2009	Explosive atmospheres: Part 29 gas detectors: Sec 4 performance requirements of open path detectors for flammable gases	December, 2024	-	Identical under single numbering
26	IS/IEC 60079-29-1:2016 IEC 60079-29-1 : 2016 Reviewed In : 2024 IEC 60079-29-1 : 2016	Explosive atmospheres Part 29 Gas detectors Section 1 Performance Requirements of Detectors for Flammable Gases (First Revision)	June, 2024	1	Identical under single numbering
27	IS/IEC 60079-29-2:2015 IEC 60079-29-2 : 2015 Reviewed In : 2022 IEC 60079-29-2:2015	Explosive atmospheres: Part 29 gas detectors: Sec 2 selection, installation, use and maintenance of detectors for flammable gases and oxygen (First Revision)	December, 2022	-	Identical under single numbering
28	IS/IEC/IEEE 60079-30-2):2015 IEC/IEEE 60079-30-2:2015 IEC/IEEE 60079-30-2:2015	Explosive atmospheres - Part 30 Electrical resistance trace heating Section 2 Application guide for design, installation and maintenance (First revision)		-	Identical under single numbering
29	IS/IEC/IEEE 60079-30-1:2015 IEC/IEEE60079-30- 1 : 2015 Reviewed In : 2023 IEC/IEEE 60079-30-1 : 2015	Explosive Atmospheres Part 30 Electrical Resistance Trace Heating Section 1 General and testing requirements (First Revision)	July, 2023	-	Identical under single numbering
30	IS/IEC 60079-31:2022 IEC 60079-31:2022 IEC 60079-31:2022	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t" (Second Revision)		-	Identical under single numbering
31	IS/IEC/TS	Explosive Atmospheres Part 32		-	Identical under single

	60079-32-1):2013 IEC TS 60079-32-1: 2013+AMD1:2017 IEC TS 60079-32-1: 2013+AMD1:2017	Electrostatic Hazards Section 1 Guidance			numbering
32	IS/IEC 60079-32-2):2015 IEC 60079-32-2:2015 IEC 60079-32-2:2015	Explosive Atmospheres Part 32 Electrostatics Hazards Section 2 Tests		-	Identical under single numbering
33	IS/IEC 60079-33:2012 IEC 60079-33 : 2012 IEC 60079-33 : 2012	Explosive Atmospheres Part 33 Equipment Protection by Special Protection 's'		-	Identical under single numbering
34	IS/IEC 60079-35-1:2011 IEC 60079-35-1 : 2011 Reviewed In : 2025 IEC 60079-35-1 : 2011	Explosive Atmospheres Part 35 Caplights for Use in Mines Susceptible to Firedamp Section 1 General requirements - Construction and testing in Relation to the risk of explosion	March, 2025	-	Identical under single numbering
35	IS/IEC 60079-35-2:2011 IEC 60079-35-2 : 2011 Reviewed In : 2024 IEC 60079-35-2:2011	Explosive Atmospheres Part 35 Caplights for use in Mines Susceptible to Firedamp Section 2 Performance and other safety related matters	January, 2024	-	Identical under single numbering
36	IS/IEC/TS 60079-39:2015 IEC TS 60079-39:2015 IEC TS 60079-39:2015	Explosive Atmospheres Part 39 Intrinsically Safe Systems with Electronically Controlled Spark Duration Limitation		-	Identical under single numbering
37	IS/IEC/TS 60079-40:2015 IEC 60079-40 : 2015 IEC 60079-40 : 2015	Explosive atmospheres Part 40: Requirements for process sealing between flammable process fluids and electrical systems		-	Identical under single numbering
38	IS/IEC/TS 60079-42:2019 IEC TS 60079-42:2019 IEC TS 60079-42:2019	Explosive atmospheres Part 42 Electrical Safety Devices for the Control of Potential Ignition Sources from Ex-Equipment		-	Identical under single numbering
39	IS/IEC/TS 60079-43:2017 IEC TS 60079-43:2017 IEC TS 60079-43:2017	Explosive Atmospheres Part 43: Equipment in adverse service conditions		-	Identical under single numbering
40	IS/IEC/TS 60079-46:2017 IEC TS 60079-46 : 2017 IEC TS 60079-46 : 2017	Explosive Atmospheres Part 46 Equipment Assemblies		-	Identical under single numbering

41	IS/IEC/TS 60079-47:2021 IEC TS 60079-47:2021 IEC TS 60079-47:2021	Explosive Atmospheres Part 47 Equipment Protection by 2-Wire Intrinsically Safe Ethernet Concept (2-Wire)		-	Identical under single numbering
42	IS/ISO/IEC 80079-20-1):2017 ISO/IEC 80079-20-1:2017 ISO/IEC 80079-20-1:2017	Explosive atmospheres - Part 20 Material characteristics for gas and vapour classification Section 1 Test methods and data		-	Identical under single numbering
43	IS/ISO/IEC 80079-20- 2:2016 ISO/IEC 80079-20-2 : 2016 Reviewed In : 2022 ISO/IEC 80079-20-2 : 2016	Explosive atmospheres: Part 20 material characteristics: Sec 2 combustible dusts test methods	October, 2022	-	Identical under single numbering
44	IS/ISO/IEC 80079-34:2018 ISO/IEC 80079-34 : 2018 Reviewed In : 2024 ISO/IEC 80079-34 : 2018	Explosive Atmospheres Part 34 Application of Quality Management Systems for Ex Product Manufacture	July, 2024	-	Identical under single numbering
45	IS/ISO/IEC 80079-36:2016 ISO/IEC 80079-36 : 2016 ISO/IEC 80079-36 : 2016	Explosive Atmospheres Part 36 Non-electrical Equipment for Explosive Atmospheres - Basic Method and Requirements		-	Identical under single numbering
46	IS/ISO/IEC 80079-37:2016 ISO/IEC 80079-37 : 2016 ISO/IEC 80079-37 : 2016	Explosive Atmospheres Part 37 Non-electrical Equipment for Explosive Atmospheres - Non Electrical Type of Protection Constructional Safety "c", Control of Ignition Source "b", Liquid Immersion "k"		-	Identical under single numbering
47	IS/ISO/IEC 80079-38:2016 ISO/IEC 80079-38 : 2016 ISO/IEC 80079-38 : 2016	Explosive Atmospheres Part 38 Equipment and Components in Explosive Atmospheres in Underground Mines		-	Identical under single numbering
48	IS 9559:1980 Reviewed In : 2020	Guide for selection of electrical and electronic equipment for coal mines	October, 2020	-	Indigenous
49	IS 9559:2025	Selection of Electrical and Electronic Equipment for Coal Mines - Guide (First Revision)		-	Indigenous
50	IS 9836:1981 Reviewed In : 2021	Specification for exploders	August, 2021	-	Indigenous

Standards under Development

Projects Approved

SI. No.	Doc No.	Title
No Records Found		

Preliminary Draft Standards		
SI. No.	Doc No.	Title
No Records Found		

Drafts Standards in WC Stage		
SI. No.	Doc No.	Title
No Records Found		

Draft Standards Completed WC Stage		
SI. No.	Doc No.	Title
1	ETD 22 (27721)	Explosive atmospheres - Part 14 Electrical installation design selection and installation of equipment including initial inspection
2	ETD 22 (27722)	Explosive atmospheres - Part 17 Electrical installations inspection and maintenance Second Revision

Finalized Draft Indian Standard		
SI. No.	Doc No.	Title
No Records Found		

Finalized Draft Indian Standards under Print		
SI. No.	Doc No.	Title
1	ETD 22 (27716)	e-EXPLODERS SPECIFICATION
2	ETD 22 (27718)	Dry Type Mining Transformers Transwitch Units and Load Centers

Total Published Standards:40	Total Standards Under development:4
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Aspect Wise Report
Product : 25
Code of Practices : 15
Methods of Test : 3
Terminology : 0
Dimensions : 0
System Standard : 0
Safety Standard : 2
Others : 2
Service Specification : 0
Process Specification : 0
Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded		
SI. No.	IS No. & Year	Title
1	IS 10398:1982 Reviewed In : 2016	Specification for zener barrier for intrinsically safe process control instruments
2	IS 10406:1983	Intrinsically Safe Transformers Primarily For Bell Signalling Circuits
3	IS 11005:1984	Dust Tight Ignition Proof Enclosures Of Electrical Equipment
4	IS 11064:1984	Guide for construction and use of rooms or buildings protected by pressurization for installation of

	IEC 60079-13 Reviewed In : 2016	electrtcal apparatus for explosive gas atmospheres
5	IS 12315 (Part 1):1988 IEC 61241-1 Reviewed In : 2008	Methods of determining the minimum ignition temperature of dusts Part 1 Dust layer on a heated surface at a constant temperature
6	IS 12315 (Part 2):1988 IEC 61241-2-1 Reviewed In : 2008	Methods of determining the minimum ignition temperature of dusts Part 2 Dust cloud in a furnace at a constant temperature
7	IS 13346:2004	Electrical Apparatus for Explosive Gas Atmospheres - General Requirements
8	IS 13408 (Part 1):1992 Reviewed In : 2008	Code of Practice for the Selection Installation and Maintenance of Electrical Apparatus for Use in Potentially Explosive Atmospheres Other than Mining Applications or Explosives Processing and Manufacture - Part 1 General
9	IS 14154 (Part 1):1996 Reviewed In : 2006	Electrical Apparatus with Protection By Enclosure for Use in the Presence of Combustible Dusts - Part 1 Classification for Apparatus
10	IS 14154 (Part 2):1997	Electrical apparatus with protection by enclosure for use in presence of combustible dust Part 2 Guide to elecction installation and maintenance
11	IS 14774 (Part 1):2000 IEC 62086-1 Reviewed In : 2010	Resistance Trace Heating in Potentially Explosive Atmospheres - Part 1 General and Testing Requirements
12	IS 14774 (Part 2):2000 IEC 62086-2 Reviewed In : 2010	Resistance Trace Heating in Potentially Explosive Atmospheres - Part 2 Informative Application Guide for Design Installation and Maintenance
13	IS 15142:2002 Reviewed In : 2012 BS 7535:1992	Guide to the use of Electrical Apparatus for Potentially Explosive Atmospheres in the Presence of Combustible Dust
14	IS 15451:2004	Electrical Apparatus For Explosive Gas Atmospheres - Encapsulation m
15	IS 2148:2004	Electrical Apparatus for Explosive Gas Atmospheres - Flameproof Enclosures d
16	IS 2206 (Part 1):1984 Reviewed In : 2005 BS: 889-1965	Specification for flameproof electric lighting fittings Part 1 well - Glass and bulkhead types First Revision
17	IS 2206 (Part 2):1976 Reviewed In : 2003	Flameproof electric lighting fittings Part 2 Fittings using glass tubes
18	IS 2206 (Part 4):1987 Reviewed In : 2003	Flameproof Electric Lighting Fittings - Part 4 Portable Flame-proof Handlamps and Approved Flexible Cables
19	IS 4821:1968	Cable glands and cable sealing boxes for use in mines
20	IS 5571:2009 IEC 60079-14 Reviewed In : 2014	Guide for selection and installation of electrical equipment in hazardous areas Other Than Mines Third Revision
21	IS 5679:1986 Reviewed In : 2016	Miners cap lamp assemblies incorporating lead acid type batteries
22	IS 5780:2002	Electrical Apparatus for Explosive Gas Atmospheres - Intrinsic Safety i
23	IS 5833:1970	Flameproof air-break electrically operated gate-end boxes
24	IS/IEC 60079-1:2007 Reviewed In : 2014	Explosive Atmospheres - Part 1 Equipment Protection by Flameproof Enclosures d
25	IS/IEC 60079-20:1996 Reviewed In : 2012 IEC 60079-20:1996	Electrical apprtatus for explosive gas atmospheres Part 20 Data for flammable gases and vapours relating to the use of electrical apparatus
26	IS/IEC 60079-20-1:2010 Reviewed In : 2018 IEC 60079-20-1:2010	Explosive atmospheres Part 20 material characteristics for gas and vapour classification Sec 1 test methods and data
27	IS/IEC 60079-27:2008 IEC 60079-27 : 2008 IEC 60079 - 27 : 2008	Explosive atmospheres - Part 27 Fieldbus intrinsically safe concept FISCO

28	IS/IEC 60079-30-1:2007 Reviewed In : 2012 IEC 60079-30-1:2015	Explosive atmospheres Part 30 electrical resistance trace heating Sec 1 general and testing requirements
29	IS/IEC 60079-30-2:2007 Reviewed In : 2012 IEC 60079-30-2:2007	Explosive atmospheres Part 30 electrical resistance trace heating Sec 2 application guide for design installation and maintenance
30	IS/IEC 61241-0:2004 Reviewed In : 2014 IEC 61241-0:2004	Electrical apparatus for use in the presence of combustible dust Part 0 General requirements
31	IS/IEC 61241-1:2004 Reviewed In : 2014 IEC 61241-1:2004	Electrical apparatus for use in the presence of combustible dust Part 1 Protection by enclosures tD
32	IS/IEC 61241-2-1:1994 Reviewed In : 2014 IEC 61241-2-1:1994	Electrical Apparatus for use in the Presence of Combustible Dust Part 2 Test Methods Section 1 Methods for Determining the Minimum Ignition Temperatures
33	IS/IEC 61241-2-3:1994 Reviewed In : 2014 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
34	IS/IEC 61241-4:2001 Reviewed In : 2014 IEC 61241-4:2001	Electrical apparatus for use in the presence of combustible dust Part 4 type of protection PD
35	IS/IEC 61241-10:2004 Reviewed In : 2014 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
36	IS/IEC 61241-11:2005 Reviewed In : 2014 IEC 61241-11:2005	Electrical apparatus for use in the presence of combustible dust Part 11 Protection by intrinsic safety ID
37	IS/IEC 61241-14:2004 Reviewed In : 2014 IEC 60079-30-2:2015	Electrical apparatus for use in the presence of combustible dust Part 14 selection and installation
38	IS/IEC 61241-18:2004 Reviewed In : 2014 IEC 61241-18:2004	Electrical apparatus for use in the presence of combustible dust Part 11 Protection by encapsulation mD
39	IS 6381:2004	Electrical Apparatus for Explosive Gas Atmospheres - Increased Safety e
40	IS 6539:1972	Intrinsically Safe Magneto Telephones for Use in Hazardous Atmospheres
41	IS 6789:1972	Bolted flameproof cable coupler and adaptors
42	IS 7389:2004	Electrical Apparatus for Explosive Gas Atmospheres - Pressurized Enclosures p
43	IS 7389 (Part 1):1976	Pressurized enclosures of electrical apparatus for use in explosive atmospheres Part 1 Pressurized enclosures with no internal source of flammable gas or vapour
44	IS 7693:2004 Reviewed In : 2009	Electrical Apparatus for Explosive Gas Atmospheres - Oil-Immersion o
45	IS 7724:2004	Electrical Apparatus for Explosive Gas Atmospheres - Powder Filling q
46	IS 7820:2004 IEC 60079-4 Reviewed In : 2009	Electrical Apparatus for Explosive Gas Atmospheres - Method of Test for Ignition Temperature
47	IS 8224:1976 Reviewed In : 2003	Electric Lighting Fittings For Division 2 Areas
48	IS 8239:1976 Reviewed In : 1991	Classification of maximum surface temperatures of electrical equipment for use in explosive atmospheres
49	IS 8240:1976 Reviewed In : 1991	Guide for electrical equipment for explosive atmosphere
50	IS 8241:1976 Reviewed In : 1991	Method of Marking for Identifying Electrical Equipment for Explosive Atmospheres
51	IS 8289:1976	Electrical equipment with type of protection n

	Reviewed In : 2006	
52	IS 8945:1987 Reviewed In : 2020	Specification for electrical measuring instruments for explosive gas atmospheres First Revision
53	IS 9166:1979	Spark Test Apparatus for Intrinsically-safe Circuits
54	IS 9570:1980 IEC 60079--12 Reviewed In : 2011	Classification of flammable gases or vapours with air according to their maximum experimental safe gaps and minimum igniting currents
55	IS 9735:2003 IEC 60097-1-1 Reviewed In : 2008	Electrical Apparatus for Explosive Gas Atmospheres - Flameproof Enclosures d - Method of Test for Ascertainment of Maximum Experimental Safe Gap

Annexure-II :List of Indian Product Standards

Sl. No.	IS No. & Year	Title
1	IS 11333:1985 Reviewed In : 2021 BS 5067 : 1974	Specification for flameproof dry type transformers for use in mines
2	IS 2772:1982 Reviewed In : 2022	Specification for non - Flameproof mining transformers for use below ground First Revision
3	IS/IEC 60079-0:2017 IEC 60079-0 : 2017 IEC 60079-0 : 2017	Explosive Atmospheres Part 0 Equipment General Requirements Third Revision
4	IS/IEC 60079-2:2014 IEC 60079-2 : 2014 Reviewed In : 2022 IEC 60079-2:2014	Explosive atmospheres Part 2 equipment protection by pressurized enclosure 39 39 p 39 39 First Revision
5	IS/IEC 60079-6:2020 IEC 60079-6:2020(Ed 4.1) ISO 15862 : 2009	Explosive atmospheres - Part 6 Equipment protection by liquid immersion 34 o 34 Second Revision
6	IS/IEC 60079-7:2017 IEC 60079-7:2017 (Ed 5.1)	Explosive atmospheres - Part 7 Equipment protection by increased safety 34 e 34 Second Revision
7	IS/IEC 60079-11:2023 IEC 60079-11:2023	Explosive Atmospheres Part 11 Equipment Protection by Intrinsic Safety i Second Revision
8	IS/IEC 60079-13:2017 IEC 60079-13 : 2017	Explosive Atmospheres Part 13 Equipment Protection by Pressurized Room 39 39 p 39 39 and Artificially Ventilated Room 39 39 v 39 39 First Revision
9	IS/IEC 60079-15:2017 IEC 60079-15:2017	EXPLOSIVE ATMOSPHERES PART 15 EQUIPMENT PROTECTION BY TYPE OF PROTECTION 39 39 n 39 39 Second Revision
10	IS/IEC 60079-18:2014 IEC 60079-18 : 2014 IEC 60079-18:2014	Explosive atmospheres Part 18 equipment protection by encapsulation 39 39 m 39 39 Second Revision
11	IS/IEC 60079-25:2020 IEC 60079-25:2020	Explosive atmospheres - Part 25 Intrinsically safe electrical systems Second Revision
12	IS/IEC 60079-26:2021 IEC 60079-26:2021 21266-2: 2018	Explosive atmospheres - Part 26 Equipment with Separation Elements or combined Levels of Protection Second Revision
13	IS/IEC 60079-28:2015 IEC 60079-28 : 2015 Reviewed In : 2023 IEC 60079-28:2015	Explosive atmospheres Part 28 protection of equipment and transmission systems using optical radiation First Revision
14	IS/IEC 60079-29-4:2009 IEC 60079-29-4 : 2009 Reviewed In : 2024 IEC 60079-29-4:2009	Explosive atmospheres Part 29 gas detectors Sec 4 performance requirements of open path detectors for flammable gases

15	IS/IEC/IEEE 60079-30-1:2015 IEC/IEEE60079-30-1 : 2015 Reviewed In : 2023 IEC/IEEE 60079-30-1 : 2015	Explosive Atmospheres Part 30 Electrical Resistance Trace Heating Section 1 General and testing requirements First Revision
16	IS/IEC 60079-31:2022 IEC 60079-31:2022	Explosive atmospheres - Part 31 Equipment dust ignition protection by enclosure 39 39 t 39 39 Second Revision
17	IS/IEC 60079-33:2012 IEC 60079-33 : 2012 IEC 60079-33 : 2012	Explosive Atmospheres Part 33 Equipment Protection by Special Protection s
18	IS/IEC 60079-35-1:2011 IEC 60079-35-1 : 2011 Reviewed In : 2025 IEC 60079-35-1 : 2011	Explosive Atmospheres Part 35 Caplights for Use in Mines Susceptible to Firedamp Section 1 General requirements - Construction and testing in Relation to the risk of explosion
19	IS/IEC 60079-35-2:2011 IEC 60079-35-2 : 2011 Reviewed In : 2024 IEC 60079-35-2:2011	Explosive Atmospheres Part 35 Caplights for use in Mines Susceptible to Firedamp Section 2 Performance and other safety related matters
20	IS/IEC/TS 60079-40:2015 IEC 60079-40 : 2015 ISO 17480 : 2015	Explosive atmospheres Part 40 Requirements for process sealing between flammable process fluids and electrical systems
21	IS/IEC/TS 60079-46:2017 IEC TS 60079-46 : 2017 IEC TS 60079-46 : 2017	Explosive Atmospheres Part 46 Equipment Assemblies
22	IS/ISO/IEC 80079-36:2016 ISO/IEC 80079-36 : 2016 ISO/IEC 80079-36 : 2016	Explosive Atmospheres Part 36 Non-electrical Equipment for Explosive Atmospheres - Basic Method and Requirements
23	IS/ISO/IEC 80079-37:2016 ISO/IEC 80079-37 : 2016 ISO/IEC 80079-37 : 2016	Explosive Atmospheres Part 37 Non-electrical Equipment for Explosive Atmospheres - Non Electrical Type of Protection Constructional Safety 39 39 c 39 39 Control of Ignition Source 39 39 b 39 39 Liquid Immersion 39 39 k 39 39
24	IS/ISO/IEC 80079-38:2016 ISO/IEC 80079-38 : 2016 ISO/IEC 80079-38 : 2016	Explosive Atmospheres Part 38 Equipment and Components in Explosive Atmospheres in Underground Mines
25	IS 9836:1981 Reviewed In : 2021	Specification for exploders