BUREAU OF INDIAN STANDARDS

Program of Work

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

Liaison: **IEC TC-17 (P):** *High-voltage switchgear and controlgear* **IEC TC-17 SC-17A (P):** *Switching devices* **IEC TC-17 SC-17C (P):** *Assemblies* **IEC TC-17 (P):** *High-voltage switchgear and controlgear* **IEC TC-17 SC-17 (P):** *Switching devices* **IEC TC-17 SC-17 (P):** *Assemblies*

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 5561:2018 ANSI/ NEMA CC1 : 2009, BS 159 : 1992, BS 3288-1 : 2014, IEC 61284 : 1997, IS/IEC 62271 (Part 1) : 20	Electric power connectors - Specification (First Revision)	March, 2023	1	Modified/Technically Equivalent
2	IS/IEC 62271-1:2017 IEC 62271-1:2017+ AMD1:2021 CSV IEC 62271-1:2017+ AMD1:2021 CSV	HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR PART 1 COMMON SPECIFICATIONS FOR ALTERNATING CURRENT SWITCHGEAR AND CONTROLGEAR		-	Identical under single numbering
3	IS/IEC 62271-300:2006 IEC 62271-300 : 2006 IEC 62271-300 : 2006	High-Voltage Switchgear and Controlgear Part 300 Seismic Qualification of Alternating Current Circuit-Breakers	March, 2024	-	Identical under dual numbering
4	IS/IEC 62271-105:2021 IEC 62271-105: 2021 IEC 62271-105: 2021	High-voltage switchgear and controlgear : Part 105 Alternating current switch-fuse combinations for rated voltages above 1 kV up to and including 52 kV		-	Identical under dual numbering
5	IS/IEC 62271-104:2023 IEC 62271-104:2020 IEC 62271-104:2020	High-Voltage Switchgear and Controlgear : Part 104 Alternating Current Switches for Rated Voltages Higher than 52 kV		-	Identical under single numbering
6	IS/IEC 62271-101:2021	High-Voltage Switchgear and Controlgear Part 101: Synthetic		-	Identical under single numbering

	IEC 62271-101:2021 IEC 62271-101:2021	Testing			
7	IS/IEC 62271-202:2022 IEC 62271-202:2022 IEC 62271-202:2022	High-voltage switchgear and controlgear Part 202: AC prefabricated substations for rated voltages above 1 kV and up to and including 52 kV (First Revision)		-	Identical under single numbering
8	IS/IEC 62271-207:2023 IEC 62271-207: 2023 IEC 62271-207: 2023	High-voltage switchgear and controlgear Part 207: Seismic qualification for gas-insulated switchgear assemblies metal enclosed and solid-insulation enclosed switchgear for rated voltages above 1 kV Second Revision		-	Identical under single numbering
9	IS/IEC 62271-201:2014 IEC 62271-201 : 2014 IEC 62271-201 : 2014	High-Voltage Switchgear and Controlgear Part 201 ac Solid-Insulation Enclosed Switchgear and Controlgear for Rated Voltages Above 1 kV up to and Including 52 kV (First Revision)	March, 2024	-	Identical under single numbering
10	IS/IEC 62271-200:2021 IEC 62271-200:2021 IEC 62271-200:2021	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		-	Identical under single numbering
11	IS/IEC 62271-102:2018 IEC 62271-102 : 2018 IEC 62271-102 : 2018	High-Voltage Switchgear and Controlgear Part 102 Alternating Current Disconnectors And Earthing Switches		-	Identical under single numbering
12	IS/IEC 62271-301:2009 62271 : Part 301 : 2009	High Voltage Switchgear & Controlgear Part 301 Dimensional Standardization of High Voltage Terminals	March, 2023	-	Identical under single numbering
13	IS/IEC 62271-106:2021 IEC 62271-106: 2021 IEC 62271-106: 2021	High-voltage switchgear and controlgear Part 106: Alternating current contactors contactor-based controllers and motorstarters		-	Identical under single numbering
14	IS/IEC 62271-103:2021 IEC 62271-103: 2021 IEC 62271-103: 2021	High-voltage switchgear and controlgear Part 103 Alternating current switches for rated voltages above 1 kV up to and including 52 kV (First Revision)	October, 2023	-	Identical under single numbering
15	IS/IEC 62271-110:2023 IEC 62271-110:2023 IEC 62271-110:2023	High-voltage switchgear and controlgear Part 110: Inductive load switching		-	Identical under single numbering
16	IS/IEC 62271-100:2021 IEC 62271-100:2021	High-voltage switchgear and controlgear Part 100 Alternating-current circuit-breakers		-	Identical under single numbering

	IEC 62271-100:2021				
17	IS/IEC 62271-111:2019 IEC 62271-111:2019 IEC 62271-111:2019	High Voltage Switchgear and Controlgear: Part 111 Automatic circuit reclosers for alternating current systems up to and including 38 kV		-	Identical under single numbering
18	IS/IEC 62271-109:2019 IEC 62271-109: 2019 IEC 62271-109: 2019	High-Voltage switchgear and Controlgear: Part 109 Alternating-current series capacitor by-pass switches		-	Identical under single numbering
19	IS/IEC 62271-203:2022 IEC 62271-203:2022 IEC 62271-203:2022	High-voltage switchgear and controlgear Part 203: AC gas-insulated metal-enclosed switchgear for rated voltages above 52 kV		-	Identical under single numbering
20	IS 8084:2025	Interconnecting Bus-Bars for a.c. Voltage Above 1 kV up to and Including 36 kV ï¿½ Specification (First Revision)		-	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
No Records Found		

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 8 (06715)	High-Voltage Switchgear and Controlgear Part 202 High-Voltage Low-Voltage Prefabricated Substation
2	ETD 8 (06716)	High-Voltage Switchgear and Controlgear Part 103 Switches for Rated Voltages above 1 KV UP to and Including 52 KV

3	ETD 8 (06713)	High-voltage switchgear and controlgear Part 111 Overhead pad-mounted dry valut and submersible automatic circuit reclosures and fault interrupters for alternating current systems up to 38 kV
4	ETD 8 (06714)	High-voltage switchgear and controlgear Part 104 Alternating current switches for rated voltage of 52 kV and above
5	ETD 8 (10871) Revision of: IS 5561:2018	Specification for Electric Power Connectors
6	ETD 8 (10910)	High-Voltage Switchgear and Controlgear Part 101 Synthetic Testing
7	ETD 8 (10911) Revision of: IS/IEC 62271:2012	High-Voltage Switchgear and Controlgear Part 105 Alternating Current Switch Fuse Combinations for Rated Voltages Above 1 kV Up to and Including 52 kV
8	ETD 8 (10925)	High-voltage switchgear and controlgear - Part 106 Alternating current contactors contactor-based controllers and motor-starters
9	ETD 8 (10940)	High-voltage switchgear and controlgear - Part 300 Seismic qualification of alternating current circuit-breakers
10	ETD 8 (10949)	High-voltage switchgear and controlgear - Part 301 Dimensional standardisation of high-voltage terminals
11	ETD 8 (11040)	High-Voltage Switchgear and Controlgear Part 200 AC metal-enclosed Switchgear and Controlgear for rated voltages above 1 kV up to and including 52 kV
12	ETD 8 (11041)	High-Voltage Switchgear and Controlgear Part 201 AC solid insulation-enclosed Switchgear and Controlgear for rated voltages above 1 kV up to and including 52 kV
13	ETD 8 (11046)	High-Voltage Switchgear and Controlgear Part 203 Gas insulated metal-enclosed Switchgear for rated voltages above 52 kV
14	ETD 8 (11047)	High-Voltage Switchgear and Controlgear Part 207 Seismic qualification for gas insulated Switchgear assemblies for rated voltages above 52 kV
15	ETD 8 (13524) Revision of: IS/IEC 62271:2003	High-Voltage Switchgear and Controlgear Part 102 Alternating Current Disconnectors And Earthing Switches
16	ETD 8 (18950) Revision of: IS/IEC 62271:2009	High-Voltage Switchgear and Controlgear Part 104 Alternating Current Switches for Rated Voltages Higher than 52 kV
17	ETD 8 (21278) Revision of: IS/IEC 62271:2007	HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR PART 1 COMMON SPECIFICATIONS FOR ALTERNATING CURRENT SWITCHGEAR AND CONTROLGEAR
18	ETD 8 (21451) Revision of: IS/IEC 62271:2008	High-voltage switchgear and controlgear Part 100 Alternating-current circuit-breakers
19	ETD 8 (21471) Revision of: IS/IEC 62271:2012	High-Voltage Switchgear and Controlgear Part 101 Synthetic Testing
20	ETD 8 (21473) Revision of: IS/IEC 62271:2011	High-voltage switchgear and controlgear Part 103 Alternating current switches for rated voltages above 1 kV up to and including 52 kV First Revision
21	ETD 8 (21475) Revision of: IS/IEC 62271:2012	High-voltage switchgear and controlgear Part 105 Alternating current switch-fuse combinations for rated voltages above 1 kV up to and including 52 kV
22	ETD 8 (21477) Revision of: IS/IEC 62271:2012	High-voltage switchgear and controlgear Part 106 Alternating current contactors contactor-based controllers and motorstarters
23	ETD 8 (21478) Revision of: IS/IEC 62271:2008	High-Voltage switchgear and Controlgear Part 109 Alternating-current series capacitor by-pass switches
24	ETD 8 (21479) Revision of: IS/IEC 62271:2012	High Voltage Switchgear and Controlgear Part 111 Automatic circuit reclosers for alternating current systems up to and including 38 kV
25	ETD 8 (21481) Revision of: IS/IEC 62271:2011	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
26	ETD 8 (21482) Revision of: IS/IEC 62271:2011	High-voltage switchgear and controlgear Part 203 AC gas-insulated metal-enclosed switchgear for rated voltages above 52 kV
27	ETD 8 (22070)	Electric power connectors - Specification First Revision Amendment - 1
28	ETD 8 (22728)	High-voltage switchgear and controlgear Part 110 Inductive load switching
29	ETD 8 (23461) Revision of: IS 8084:1976	Interconnecting Bus-Bars for a c Voltage Above 1 kV up to and Including 36 kV Specification First Revision
30	ETD 8 (25993) Revision of: IS/IEC 62271:2012	High-voltage switchgear and controlgear Part 207 Seismic qualification for gas-insulated switchgear assemblies metal enclosed and solid-insulation enclosed switchgear for rated voltages above 1 kV Second Revision
31	ETD 8 (25995) Revision of: IS/IEC 62271:2014	High-voltage switchgear and controlgear Part 202 AC prefabricated substations for rated voltages above 1 kV and up to and including 52 kV First Revision
32	ETD 8 (27174)	Code of Practice for on-site Diagnostic Tests and Condition Monitoring of High Voltage Substation Equipment

Total Published Standards:20 Total Standards Under development:32

Aspect Wise Report

Product : 17
Code of Practices : 1
Methods of Test : 1
Terminology : 0
Dimensions : 0
System Standard : 0
Safety Standard : 0
Others : 0
Service Specification : 0
Process Specification : 0
Unclassified : 1

Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 10601:1983	Dimensions of terminals of high voltage switchgear and controlgear
2	IS 12661 (Part 1):1988	High Voltae Motor-starter Part 1 Direct-on-line full Voltage Ac Starters
3	IS 12729:2004	Common High-Voltage Switchgear and Controlgear Standards
4	IS 13118:1991	High-Voltage Alternating-Current Circuit-Breakers
5	IS 13516:1993	Methods of Synthetic Testing of High Voltage Alternating Current Circuit-breakers
6	IS 14657:1999	Gas insulated metal enclosed switchgear for rated voltages 72 5 kV and above - requirements for switching of bus-charging currents by disconnectors
7	IS 14658:1999	High Voltage Alternating Current Circuit Breakers - Guide for Short-circuit and Switching Test Procedures for Metal-enclosed and Dead Tank Circuit Breakers
8	IS 14659:1999	A C Insulation-Enclosed Switchgear and Controlgear for Rated Voltages Above 1 kV and up to and Including 38 Kv
9	IS 14666:1999	High-voltage Alternating Current Switch-fuse Combinations
10	IS 14674:1999	High Voltage Alternating Current Circuit-breakers-guide for Seismic Qualification of High Voltage Alternating Current Circuit-breakers
11	IS 14786:2000	High-Voltage Low-Voltage Prefabricated Substations
12	IS 1818:1972	Alternating current isolators disconnectors and earthing switches
13	IS 2516 (Part 1/Sec 2):1980	Circuit-breakers Part 1 General and definitions Sec 2 For voltages above 1000V ac
14	IS 2516 (Part 1/Sec 3):1972	Circuit breakers Part 1 General and definitions Sec 3 Voltages above 11 kV
15	IS 2516 (Part 2/Sec 2):1980	Circuit breakers Part 2 Rating Sec 2 For voltages above 1000 V ac
16	IS 2516 (Part 3/Sec 2):1980	Circuit breakers Part 3 Design and construction Sec 2 for Voltages above 1000 V ac
17	IS 2516 (Part 4/Sec 2):1980	Circuit Breakers Part 4 Type Tests and Routine Tests Sec 2 For Voltages Above 1000 V ac
18	IS 2516 (Part 5/Sec 2):1980	Circuit Breakers Part 5 Information to be given with enquiries Tenders and Orders and Ruls of Transport Erection and Maintenance Sec 2 for Voltages above 1000 V ac
19	IS 3427:1997 IEC 298 :1990 IEC 298 :1990	A C Metal Enclosed Switchgear and Controlgear for Rated Voltages Above 1 kV and Up to and Including 52 kV

20	IS 4710:1968	Switches and switch-isolators above 1000 V but not exceeding 11000 V
21	IS/IEC 517:1990 IEC 517	Gas Insulated Metal Enclosed Switchgear for Rated Voltages of 72 5 kV and above
22	IS/IEC 60470:2000 IEC 60470:2000	High-Voltage Switchgear Alternating Current Contactors and Contactor-Based Motor Starters
23	IS 7567:1993	Automatic circuit reclosers
24	IS 7987:1976	Guide for selection of high voltage ac circuit breakers
25	IS 9046:1978	AC contactors of voltage above 1000 V upto and including 11000 V
26	IS 9135:1979 IEC Pub 56-4 (1972), IEC Pub 267 (1968)	Guide for testing of circuit - Breakers with respect to out - Of - Phase switching
27	IS 9920 (Part 1):2002	High Voltage Switches - Part 1 Switches for Rated Voltages Above 1 kV and Less Than 52 Kv
28	IS 9920 (Part 2):2001	High Voltages Switches Part II High Voltage Switches for rated Voltages of 52kV and abve Rating
29	IS 9920 (Part 3):1982	Alternating Current Switches for Voltages Above 1 000 V - Part III Design and Construction
30	IS 9920 (Part 4):1985	Alternating Current Switches for Voltages Above 1000 V - Part 4 Type Tests and Routine Tests
31	IS 9921 (Part 3):1982	Alternating Current Disconnectors Isolators and Earthing Switches for Voltages Above 1000 V - Part III Design and Construction
32	IS 9921 (Part 1):1981	Alternating Current Disconnectors Isolators and Earthing Switches for Voltages Above 1 000 V - Part I General and Definitions
33	IS 9921 (Part 2):1982	Alternating current disconnectors isolators and earthing switches for voltages above 1000 V Part 2 Rating
34	IS 9921 (Part 4):1985	Alternating Current Disconnectors isolators and Earthing Switches for Voltages Above 1000 V - Part 4 Type Tests and Routine Tests
35	IS 9921 (Part 5):1985	Alternating Current Disconnectors Isolators and Earthing Switches for Voltages Above 1 000 v - Part 5 Information to be Given with Tenders Enquiries and Orders

Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
1	IS 5561:2018 ANSI/ NEMA CC1 : 2009, BS 159 : 1992, BS 3288-1 : 2014, IEC 61284 : 1997, IS/IEC 62271 (Part 1) : 20	Electric power connectors - Specification First Revision
2	IS/IEC 62271-109:2019 IEC 62271-109: 2019	High-Voltage switchgear and Controlgear Part 109 Alternating-current series capacitor by-pass switches
3	IS/IEC 62271-105:2021 IEC 62271-105: 2021	High-voltage switchgear and controlgear Part 105 Alternating current switch-fuse combinations for rated voltages above 1 kV up to and including 52 kV
4	IS/IEC 62271-111:2019 IEC 62271-111:2019	High Voltage Switchgear and Controlgear Part 111 Automatic circuit reclosers for alternating current systems up to and including 38 kV
5	IS/IEC 62271-1:2017 IEC 62271-1:2017+AMD1:2021 CSV	HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR PART 1 COMMON SPECIFICATIONS FOR ALTERNATING CURRENT SWITCHGEAR AND CONTROLGEAR
6	IS/IEC 62271-104:2023 IEC 62271-104:2020	High-Voltage Switchgear and Controlgear Part 104 Alternating Current Switches for Rated Voltages Higher than 52 kV

7	IS/IEC 62271-201:2014 IEC 62271-201 : 2014 IEC 62271-201 : 2014	High-Voltage Switchgear and Controlgear Part 201 ac Solid-Insulation Enclosed Switchgear and Controlgear for Rated Voltages Above 1 kV up to and Including 52 kV First Revision
8	IS/IEC 62271-203:2022 IEC 62271-203:2022	High-voltage switchgear and controlgear Part 203 AC gas-insulated metal-enclosed switchgear for rated voltages above 52 kV
9	IS/IEC 62271-106:2021 IEC 62271-106: 2021	High-voltage switchgear and controlgear Part 106 Alternating current contactors contactor-based controllers and motorstarters
10	IS/IEC 62271-301:2009 62271 : Part 301 : 2009	High Voltage Switchgear Controlgear Part 301 Dimensional Standardization of High Voltage Terminals
11	IS/IEC 62271-200:2021 IEC 62271-200:2021	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
12	IS/IEC 62271-103:2021 IEC 62271-103: 2021	High-voltage switchgear and controlgear Part 103 Alternating current switches for rated voltages above 1 kV up to and including 52 kV First Revision
13	IS/IEC 62271-102:2018 IEC 62271-102 : 2018	High-Voltage Switchgear and Controlgear Part 102 Alternating Current Disconnectors And Earthing Switches
14	IS/IEC 62271-202:2022 IEC 62271-202:2022	High-voltage switchgear and controlgear Part 202 AC prefabricated substations for rated voltages above 1 kV and up to and including 52 kV First Revision
15	IS/IEC 62271-100:2021 IEC 62271-100:2021	High-voltage switchgear and controlgear Part 100 Alternating-current circuit-breakers
16	IS/IEC 62271-110:2023 IEC 62271-110:2023	High-voltage switchgear and controlgear Part 110 Inductive load switching
17	IS 8084:2025	Interconnecting Bus-Bars for a c Voltage Above 1 kV up to and Including 36 kV Specification First Revision