

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*

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 5561:2018 Reviewed In : 2023 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 62271-100:2021 IEC 62271-100:2021 IEC 62271-100:2021	High-voltage switchgear and controlgear Part 100 Alternating- current circuit-breakers		-	Identical under single numbering
4	IS/IEC 62271-101:2021 IEC 62271-101:2021 IEC 62271-101:2021	High-Voltage Switchgear and Controlgear Part 101: Synthetic Testing		-	Identical under single numbering
5	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
6	IS/IEC 62271-103:2021 IEC 62271-103:	High-voltage switchgear and controlgear Part 103 Alternating current switches for rated voltages	October, 2023	-	Identical under single numbering

	2021 Reviewed In : 2023 IEC 62271-103: 2021	above 1 kV up to and including 52 kV (First Revision)			
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	IS/IEC 62271-201:2014 IEC 62271-201 : 2014 Reviewed In : 2024 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
15	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
16	IS/IEC 62271-202:2014 IEC 62271-202 : 2014	High - Voltage switchgear and controlgear: Part 202 high - Voltage/low - Voltage prefabricated substation		-	Identical under single numbering

	IEC 62271-202:2022				
17	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
18	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
19	IS/IEC 62271-207:2012 IEC 62271-207 : 2012 Reviewed In : 2016 IEC 62271-207: 2023	High - Voltage switchgear and controlgear: Part 207 seismic qualification for gas - Insulated switchgear assemblies for rated voltages above 52 kV (First Revision)	March, 2016	-	Identical under single numbering
20	IS/IEC 62271-300:2006 IEC 62271-300 : 2006 Reviewed In : 2024 IEC 62271-300 : 2006	High-Voltage Switchgear and Controlgear Part 300 Seismic Qualification of Alternating Current Circuit-Breakers	March, 2024	-	Identical under dual numbering
21	IS/IEC 62271-301:2009 Reviewed In : 2023 62271 : Part 301 : 2009	High Voltage Switchgear & Controlgear Part 301 Dimensional Standardization of High Voltage Terminals	March, 2023	-	Identical under single numbering
22	IS 8084:2025	Interconnecting Bus-Bars for a.c. Voltage Above 1 kV up to and Including 36 kV $i_c^{1/2}$ 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
1	ETD 8 (27174)	Code of Practice for on-site Diagnostic Tests and Condition Monitoring of High Voltage Substation Equipment

Drafts Standards in WC Stage

SI. No.	Doc No.	Title
No Records Found		

Draft Standards Completed WC Stage

Sl. No.	Doc No.	Title
No Records Found		

Finalized Draft Indian Standard

Sl. No.	Doc No.	Title
No Records Found		

Finalized Draft Indian Standards under Print

Sl. No.	Doc No.	Title
No Records Found		

Total Published Standards:19 Total Standards Under development:1

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

Sl. No.	IS No. & Year	Title
1	IS 10601:1983 Reviewed In : 2015	Dimensions of terminals of high voltage switchgear and controlgear
2	IS 12661 (Part 1):1988 Reviewed In : 2005	High Voltage Motor-starter Part 1 Direct-on-line full Voltage Ac Starters
3	IS 12729:2004 Reviewed In : 2014	Common High-Voltage Switchgear and Controlgear Standards
4	IS 13118:1991 Reviewed In : 2012	High-Voltage Alternating-Current Circuit-Breakers
5	IS 13516:1993 Reviewed In : 2013	Methods of Synthetic Testing of High Voltage Alternating Current Circuit-breakers
6	IS 14657:1999 Reviewed In : 2013	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 Reviewed In : 2014	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 Reviewed In : 2014	A C Insulation-Enclosed Switchgear and Controlgear for Rated Voltages Above 1 kV and up to and Including 38 Kv
9	IS 14666:1999 Reviewed In : 2014	High-voltage Alternating Current Switch-fuse Combinations
10	IS 14674:1999 Reviewed In : 2014	High Voltage Alternating Current Circuit-breakers-guide for Seismic Qualification of High Voltage Alternating Current Circuit-breakers
11	IS 14786:2000 Reviewed In : 2015	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 Reviewed In : 2012 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 Reviewed In : 2012 IEC 517	Gas Insulated Metal Enclosed Switchgear for Rated Voltages of 72.5 kV and above
22	IS/IEC 60470:2000 Reviewed In : 2014 IEC 60470:2000	High-Voltage Switchgear Alternating Current Contactors and Contactor-Based Motor Starters
23	IS 7567:1993 Reviewed In : 2012	Automatic circuit reclosers
24	IS 7987:1976	Guide for selection of high voltage ac circuit breakers
25	IS 9046:1978 Reviewed In : 2007	AC contactors of voltage above 1000 V upto and including 11000 V
26	IS 9135:1979 Reviewed In : 2017 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 Reviewed In : 2012	High Voltage Switches - Part 1 Switches for Rated Voltages Above 1 kV and Less Than 52 Kv
28	IS 9920 (Part 2):2001 Reviewed In : 2016	High Voltages Switches Part II High Voltage Switches for rated Voltages of 52kV and above Rating
29	IS 9920 (Part 3):1982 Reviewed In : 2012	Alternating Current Switches for Voltages Above 1 000 V - Part III Design and Construction
30	IS 9920 (Part 4):1985 Reviewed In : 2012	Alternating Current Switches for Voltages Above 1000 V - Part 4 Type Tests and Routine Tests
31	IS 9921 (Part 1):1981 Reviewed In : 2012	Alternating Current Disconnectors Isolators and Earthing Switches for Voltages Above 1 000 V - Part I General and Definitions
32	IS 9921 (Part 2):1982 Reviewed In : 2012	Alternating current disconnectors isolators and earthing switches for voltages above 1000 V Part 2 Rating
33	IS 9921 (Part 3):1982 Reviewed In : 2012	Alternating Current Disconnectors Isolators and Earthing Switches for Voltages Above 1000 V - Part III Design and Construction
34	IS 9921 (Part 4):1985 Reviewed In : 2012	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 Reviewed In : 2012	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

Sl. No.	IS No. & Year	Title
1	IS 5561:2018 Reviewed In : 2023 ANSI/	Electric power connectors - Specification First Revision

	NEMA CC1 : 2009, BS 159 : 1992, BS 3288-1 : 2014, IEC 61284 : 1997, IS/IEC 62271 (Part 1) : 20	
2	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
3	IS/IEC 62271-100:2021 IEC 62271-100:2021	High-voltage switchgear and controlgear Part 100 Alternating-current circuit-breakers
4	IS/IEC 62271-102:2018 IEC 62271-102 : 2018	High-Voltage Switchgear and Controlgear Part 102 Alternating Current Disconnectors And Earthing Switches
5	IS/IEC 62271-103:2021 IEC 62271-103: 2021 Reviewed In : 2023	High-voltage switchgear and controlgear Part 103 Alternating current switches for rated voltages above 1 kV up to and including 52 kV First Revision
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 62271-105:2021 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
8	IS/IEC 62271-106:2021 IEC 62271-106: 2021	High-voltage switchgear and controlgear Part 106 Alternating current contactors contactor-based controllers and motorstarters
9	IS/IEC 62271-109:2019 IEC 62271-109: 2019	High-Voltage switchgear and Controlgear Part 109 Alternating-current series capacitor by-pass switches
10	IS/IEC 62271-110:2023 IEC 62271-110:2023	High-voltage switchgear and controlgear Part 110 Inductive load switching
11	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
12	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
13	IS/IEC 62271-201:2014 IEC 62271-201 : 2014 Reviewed In : 2024 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
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 62271-203:2022 IEC 62271-203:2022	High-voltage switchgear and controlgear Part 203 AC gas-insulated metal-enclosed switchgear for rated voltages above 52 kV
16	IS/IEC 62271-301:2009 Reviewed In : 2023 62271 : Part 301 : 2009	High Voltage Switchgear Controlgear Part 301 Dimensional Standardization of High Voltage Terminals
17	IS 8084:2025	Interconnecting Bus-Bars for a c Voltage Above 1 kV up to and Including 36 kV Specification First Revision