

Annex 2

ETD8: 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 - High-voltage switchgear and controlgear - Principle (P)
IEC TC 17 / SC 17A - Switching devices - Principle (P)
IEC TC 17 / SC 17C - Assemblies - Principle (P)

SI No.	IS No.	Title
1.	IS 5561 : 2018 Reviewed In : 2023	Electric power connectors - Specification (First Revision)
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 62271-101 : 2021 IEC 62271-101:2021	High-Voltage Switchgear and Controlgear Part 101: Synthetic Testing
5.	IS/IEC 62271-102 : 2018 IEC 62271-102 : 2018	High-Voltage Switchgear and Controlgear Part 102 Alternating Current Disconnectors And Earthing Switches
6.	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)
7.	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
8.	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
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 62271-109 : 2019 IEC 62271-109: 2019	High-Voltage switchgear and Controlgear: Part 109 Alternating-current series capacitor by-pass switches
11.	IS/IEC 62271-110 : 2023 IEC 62271-110:2023	High-voltage switchgear and controlgear Part 110: Inductive load switching
12.	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

13.	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
14.	IS/IEC 62271-201 : 2014 IEC 62271-201 : 2014 Reviewed In : 2024	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)
15.	IS/IEC 62271-202 : 2014 IEC 62271-202 : 2014	High - Voltage switchgear and controlgear: Part 202 high - Voltage/low - Voltage prefabricated substation
16.	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
17.	IS/IEC 62271-207 : 2012 IEC 62271-207 : 2012 Reviewed In : 2016	High - Voltage switchgear and controlgear: Part 207 seismic qualification for gas - Insulated switchgear assemblies for rated voltages above 52 kV (First Revision)
18.	IS/IEC 62271-300 : 2006 IEC 62271-300 : 2006 Reviewed In : 2024	High-Voltage Switchgear and Controlgear Part 300 Seismic Qualification of Alternating Current Circuit-Breakers
19.	IS/IEC 62271-301 : 2009 Reviewed In : 2023	High Voltage Switchgear & Controlgear Part 301 Dimensional Standardization of High Voltage Terminals
20.	IS 8084 : 1976 Reviewed In : 2017	Specification for interconnecting bus - Bars for ac voltage above 1 kV up to and including 36 kV

Annexure-I : List of Indian Standards Withdrawn/Superseded

Sl. No.	IS No.	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.		
8.	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
9.	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
10.	IS 14666 : 1999 Reviewed In : 2014	High-voltage Alternating Current Switch-fuse Combinations

11.	IS 14674 : 1999 Reviewed In : 2014	High Voltage Alternating Current Circuit-breakers-guide for Seismic Qualification of High Voltage Alternating Current Circuit-breakers
12.	IS 14786 : 2000 Reviewed In : 2015	High-Voltage Low-Voltage Prefabricated Substations
13.	IS 1818 : 1972	Alternating current isolators disconnectors and earthing switches
14.	IS 2516 (Part 1/Sec 2) : 1980	Circuit-breakers Part 1 General and definitions Sec 2 For voltages above 1000V ac
15.	IS 2516 (Part 1/Sec 3) : 1972	Circuit breakers Part 1 General and definitions Sec 3 Voltages above 11 kV
16.	IS 2516 (Part 2/Sec 2) : 1980	Circuit breakers Part 2 Rating Sec 2 For voltages above 1000 V ac
17.	IS 2516 (Part 3/Sec 2) : 1980	Circuit breakers Part 3 Design and construction Sec 2 for Voltages above 1000 V ac
18.	IS 2516 (Part 4/Sec 2) : 1980	Circuit Breakers Part 4 Type Tests and Routine Tests Sec 2 For Voltages Above 1000 V ac
19.	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
20.	IS 3427 : 1997 IEC 298 :1990 Reviewed In : 2012	A C Metal Enclosed Switchgear and Controlgear for Rated Voltages Above 1 kV and Up to and Including 52 kV
21.	IS 4710 : 1968	Switches and switch-isolators above 1000 V but not exceeding 11000 V
22.	IS/IEC 517 : 1990 Reviewed In : 2012	Gas Insulated Metal Enclosed Switchgear for Rated Voltages of 72.5 kV and above
23.	IS/IEC 60470 : 2000 Reviewed In : 2014	High-Voltage Switchgear Alternating Current Contactors and Contactor-Based Motor Starters
24.	IS 7567 : 1993 Reviewed In : 2012	Automatic circuit reclosers
25.	IS 7987 : 1976	Guide for selection of high voltage ac circuit breakers
26.	IS 9046 : 1978 Reviewed In : 2007	AC contactors of voltage above 1000 V upto and including 11000 V
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
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Annexure-II: List of Indian Product Standards

SI. No.	IS No. & Year	Title
1.	IS 5561 : 2018	Electric power connectors - Specification First Revision
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	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	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 : 2014 IEC 62271-202 : 2014	High - Voltage switchgear and controlgear Part 202 high - Voltage low - Voltage prefabricated substation
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	High Voltage Switchgear Controlgear Part 301 Dimensional Standardization of High Voltage Terminals
17.	IS 8084 : 1976 Reviewed In : 2017	Specification for interconnecting bus - Bars for ac voltage above 1 kV up to and including 36 kV