

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**High-voltage switchgear and controlgear –
Part 104: Alternating current switches for rated voltages higher than 52 kV**

**Appareillage à haute tension –
Partie 104: Interrupteurs à courant alternatif pour tensions assignées
supérieures à 52 kV**



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CONTENTS

FOREWORD	5
1 Scope	7
2 Normative references	8
3 Terms and definitions	8
3.1 General terms and definitions	8
3.2 Assemblies	8
3.3 Parts of assemblies	9
3.4 Switching devices	9
3.5 Parts of switches	10
3.6 Operational characteristics of switches	10
3.7 Characteristic quantities	10
4 Normal and special service conditions	12
5 Ratings	12
5.1 General	12
5.2 Rated voltage (U_r)	12
5.3 Rated insulation level (U_d , U_p , U_s)	12
5.4 Rated frequency (f_r)	12
5.5 Rated continuous current (I_r)	12
5.6 Rated short-time withstand current (I_k)	12
5.7 Rated peak withstand current (I_p)	13
5.8 Rated duration of short-circuit (t_k)	13
5.9 Rated supply voltage of auxiliary and control circuits (U_a)	13
5.10 Rated supply frequency of auxiliary and control circuits	13
5.11 Rated pressure of compressed gas supply for controlled pressure systems	13
5.101 Rated earth fault breaking current	13
5.102 Rated short-circuit making current	13
5.103 Rated mainly active load-breaking current	13
5.104 Rated closed-loop breaking current	13
5.105 Rated capacitive switching currents	13
5.106 Inductive load switching	14
5.107 Rated static mechanical terminal load	15
5.108 Coordination of rated values for a general purpose switch	15
5.109 Coordination of rated values for limited purpose and special purpose switches	15
6 Design and construction	16
6.1 Requirements for liquids in high-voltage switches	16
6.2 Requirements for gases in high-voltage switches	16
6.3 Earthing of high-voltage switches	16
6.4 Auxiliary and control equipment and circuits	16
6.5 Dependent power operation	16
6.6 Stored energy operation	16
6.7 Independent unlatched operation (independent manual or power operation)	16
6.8 Manually operated actuators	16
6.9 Operation of releases	16
6.10 Pressure/level indication	16
6.11 Nameplates	16

6.12	Locking devices	17
6.13	Position indication.....	18
6.14	Degree of protection provided by enclosures	18
6.15	Creepage distances for outdoor insulators	18
6.16	Gas and vacuum tightness	18
6.17	Tightness for liquid systems.....	18
6.18	Fire hazard (flammability)	18
6.19	Electromagnetic compatibility (EMC).....	18
6.20	X-ray emission	18
6.21	Corrosion	18
6.22	Filling levels for insulation, switching and/or operation.....	18
6.101	Closing mechanism.....	18
6.102	Mechanical strength.....	18
6.103	Position of the movable contact system and its indicating or signalling device	18
7	Type tests	19
7.1	General.....	19
7.2	Dielectric tests	20
7.3	Radio interference voltage (RIV) tests.....	21
7.4	Resistance measurement.....	21
7.5	Continuous current tests	21
7.6	Short-time withstand current and peak withstand current tests	21
7.7	Verification of the protection	21
7.8	Tightness tests	21
7.9	Electromagnetic compatibility tests (EMC)	21
7.10	Additional tests on auxiliary and control circuits	21
7.11	X-radiation test for vacuum interrupter	21
7.101	Mechanical operation tests	22
7.102	Miscellaneous provision for making and breaking tests	24
7.103	Test circuits for making and breaking tests	26
7.104	Test quantities	36
7.105	Capacitive current tests	40
7.106	Inductive load switching (test duties TD_{notr} and TD_{shunt})	43
7.107	Tests for general purpose switches.....	43
7.108	Tests for limited purpose switches	44
7.109	Tests for special purpose switches.....	44
7.110	Type test reports.....	45
8	Routine tests	46
8.1	General.....	46
8.2	Dielectric tests on the main circuit.....	46
8.3	Tests on auxiliary and control circuits	46
8.4	Measurement of the resistance of the main circuit.....	46
8.5	Tightness test	46
8.6	Design and visual checks.....	46
8.101	Mechanical operating tests	46
9	Guide to the selection of high-voltage switches (informative)	47
9.1	General.....	47
9.2	Selection of rated values.....	47
9.3	Cable-interface considerations.....	47
9.4	Continuous or temporary overload due to changed service conditions.....	47

9.5	Environmental aspects	47
9.101	General	47
9.102	Conditions affecting application	47
9.103	Insulation coordination	47
10	Information to be given with enquiries, tenders and orders (informative)	48
11	Transport, storage, installation, operating instructions and maintenance	48
12	Safety	48
13	Influence of the product on the environment	48
	Annex A (normative) Tolerances on test quantities during tests	49
	Bibliography	52
	Figure 1 – Single-phase test circuit for mainly active load current switching for test duties TD_{load1} and TD_{load2}	27
	Figure 2 – Single-phase test circuit for transmission line closed-loop and parallel transformer current switching test, for test duties TD_{loop} and TD_{ptr}	27
	Figure 3 – Three-phase test circuit for mainly active load current switching, for test duties TD_{load1} and TD_{load2}	28
	Figure 4 – Supply and load side transient for mainly active load current switching tests (see Table 4)	29
	Figure 5 – Three-phase test circuit for transmission line closed-loop and parallel transformer current switching test for test duties TD_{loop} and TD_{ptr}	30
	Figure 6 – Illustration of the transient associated with transmission line closed-loop current breaking tests (see Table 5)	32
	Figure 7 – Three-phase test circuit for short circuit making current test for test duty TD_{ma}	35
	Figure 8 – Single-phase test circuit for short circuit making current test for test duty TD_{ma}	35
	Table 1 – Preferred values of line- and cable-charging breaking currents for a general purpose switch	15
	Table 2 – Nameplate information	17
	Table 3 – Type tests	20
	Table 4 – Supply circuit TRV parameters for mainly active load current breaking tests	29
	Table 5 – TRV parameters for transmission line closed-loop current breaking tests	31
	Table 6 – Test duties for single-phase tests on three-pole switches having a non-simultaneity between poles of 0,25 cycle or less	32
	Table 7 – Test duties for single-phase tests on three-pole switches having more than 0,25 cycle non-simultaneity and switches operated pole after pole	33
	Table 8 – TRV parameters for parallel transformer current breaking tests	34
	Table 9 – Test duties for three-phase tests on three-pole switches	37
	Table A.1 – Tolerances on test quantities during type tests (1 of 3)	49

INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

**Part 104: Alternating current switches
for rated voltages higher than 52 kV**

FOREWORD

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International Standard IEC 62271-104 has been prepared by subcommittee 17A: Switching devices of IEC technical committee 17: High-voltage switchgear and controlgear.

This third edition replaces and cancels the second edition published in 2015. It constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- new numbering, following IEC 62271-1:2017.

The text of this document is based on the following documents:

FDIS	Report on voting
17A/1273/FDIS	17A/1278/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

This standard is to be read in conjunction with IEC 62271-1:2017, IEC 62271-100:2017¹, IEC 62271-102:2018 and IEC 62271-110:2017. In order to simplify the indication of corresponding requirements, the same numbering of clauses and subclauses is used as in IEC 62271-1. Modifications to these clauses and subclauses are given under the same numbering, whilst additional subclauses are numbered from 101.

A list of all parts in the IEC 62271 series, published under the general title *High-voltage switchgear and controlgear*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

¹ Under preparation. Stage at the time of publication: IEC CCDV 62271-100:2020.

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 104: Alternating current switches for rated voltages higher than 52 kV

1 Scope

This part of IEC 62271 is applicable to three-pole alternating current switches for rated voltages higher than 52 kV, having making and breaking current ratings, for indoor and outdoor installations, and for rated frequencies up to and including 60 Hz.

This document is also applicable to the operating devices of these switches and to their auxiliary equipment.

NOTE 1 Switches for gas insulated switchgear are covered by this document.

NOTE 2 Switches having a disconnecting function and called switch-disconnectors are also covered by IEC 62271-102.

NOTE 3 Earthing switches are not covered by this document. Earthing switches forming an integral part of a switch are covered by IEC 62271-102.

The main object of this document is to establish requirements for switches used in transmission and distribution systems. General purpose switches for this application are designed to comply with the following service applications.

- carrying rated continuous current;
- carrying short-circuit currents for a specified time;
- switching of mainly active loads;
- switching of no-load transformers;
- switching of the charging current of unloaded cables, overhead lines or busbars;
- switching of closed-loop circuits;
- making short-circuit currents.

A further object of this document is to establish requirements for limited purpose and special purpose switches used in transmission and distribution systems.

Limited purpose switches comply with one or more of the service applications indicated above.

Special purpose switches may comply with one or more of the service applications indicated above and, in addition, are suitable for one or more of the following applications:

- switching single capacitor banks;
- switching back-to-back capacitor banks;
- switching shunt reactors including secondary or tertiary reactors switched from the primary side of the transformer;
- applications requiring an increased number of operating cycles;
- switching under earth fault conditions in non-effectively earthed neutral systems.