

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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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –**Part 104: Alternating current switches
for rated voltages higher than 52 kV**

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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:— 1, 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- withdrawn,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.