

INTERNATIONAL STANDARD

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High-voltage switchgear and controlgear –
Part 100: Alternating-current circuit-breakers

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Appareillage à haute tension –
Partie 100: Disjoncteurs à courant alternatif

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HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –**Part 100: Alternating-current circuit-breakers**

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International Standard IEC 62271-100 has been prepared by subcommittee 17A: Switching devices, of IEC technical committee 17: High-voltage switchgear and controlgear.

This third edition cancels and replaces the second edition published in 2008, Amendment 1:2012 and Amendment 2:2017. This edition constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- the document has been updated to IEC 62271-1:2017;
- Amendments 1 and 2 have been included;
- the definitions have been updated, terms not used have been removed;
- Subclauses 7.102 through 7.108 have been restructured.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
17A/1299/FDIS	17A/1305/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

This document is to be read in conjunction with IEC 62271-1, second edition, published in 2017, to which it refers and which is applicable unless otherwise specified. In order to simplify the indication of corresponding requirements, the same numbering of clauses and subclauses is used as in IEC 62271-1. Amendments to these clauses and subclauses are given under the same references whilst additional subclauses are numbered from 101.

A list of all parts of IEC 62271 series, 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

[IEC 62271-100:2021](https://standards.iteh.ai/catalog/standards/sist/93a3724a-1027-4187-b1c3-0ec5b25510b7/iec-62271-100-2021)

- reconfirmed, <https://standards.iteh.ai/catalog/standards/sist/93a3724a-1027-4187-b1c3-0ec5b25510b7/iec-62271-100-2021>
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The “colour inside” logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this publication using a colour printer.

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 100: Alternating-current circuit-breakers

1 Scope

This part of IEC 62271 is applicable to three-phase AC circuit-breakers designed for indoor or outdoor installation and for operation at frequencies of 50 Hz and/or 60 Hz on systems having voltages above 1 000 V. This document includes only direct testing methods for making-breaking tests. For synthetic testing methods refer to IEC 62271-101.

NOTE In a direct testing method one source is used to supply the voltage and current during the making and breaking tests.

This part of IEC 62271 is not applicable to:

- circuit-breakers with a closing mechanism for dependent manual operation;
- circuit-breakers intended for use on motive power units of electrical traction equipment; these are covered by IEC 60077 (all parts) [1]¹;
- generator circuit-breakers installed between generator and step-up transformer; these are covered by the IEC 62271-37-013 [2];
- self-tripping circuit-breakers with tripping devices that cannot be made inoperative during testing. Tests on automatic circuit reclosers are covered by IEC 62271-111 [3];
- tests to prove the performance under abnormal conditions that are not described in this document are subject to agreement between manufacturer and user. Such abnormal conditions are, for example, cases where the voltage is higher than the rated voltage of the circuit-breaker, conditions which can occur due to sudden loss of load on long lines or cables.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050-151:2001, *International Electrotechnical Vocabulary (IEV) – Part 151: Electrical and magnetic devices*

IEC 60050-151:2001/AMD1:2013

IEC 60050-151:2001/AMD2:2014

IEC 60050-151:2001/AMD3:2019

IEC 60050-151:2001/AMD4:2020

IEC 60050-441:1984, *International Electrotechnical Vocabulary (IEV) – Part 441: Switchgear, controlgear and fuses*

IEC 60050-441:1984/AMD1:2000

¹ Numbers in square brackets refer to the bibliography.