AS 62271.201:2019

Australian STANDARD®

High-voltage switchgear and controlgear

Part 201: AC solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV (IEC 62271-201:2014, MOD)

STANDARDS Australia

AS 62271.201:2019

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Australian Industry Group
Energy Networks Australia
Engineers Australia
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Originated as AS 2264—1979.
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Preface

This Standard was prepared by the Standards Australia Committee EL-007, Power Switchgear, to supersede AS 62271.201—2008, *High-voltage switchgear and controlgear, Part 201: AC insulation-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV.*

The objective of this Standard is to specify requirements for prefabricated solid-insulation enclosed switchgear and controlgear for the following:

(a) Alternating current of rated voltages above 1 kV and up to and including 52 kV for indoor installation.

(b) Service frequencies up to and including 60 Hz.

Solid-insulation enclosed switchgear and controlgear for special use, for example, inflammable atmospheres, in mines or on board ships, may be subject to additional requirements.

Components contained in solid-insulation enclosed switchgear and controlgear are designed and tested in accordance with their various relevant standards.

This Standard supplements the Standards for the individual components regarding their installation in switchgear and controlgear assemblies.

This Standard does not preclude that other equipment may be included in the same enclosure. In such a case, any possible influence of that equipment on the switchgear and controlgear should be taken into account.

This Standard is an adoption with national modifications and has been reproduced from, IEC 62271-201:2014, *High-voltage switchgear and controlgear – Part 201: AC solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV*. The modifications are additional requirements and are set out in Appendix ZZ, which has been added at the end of the source text.

Appendix ZZ lists the variations to IEC 62271-201:2014 for the application of this Standard in Australia.

As this document has been reproduced from an International Standard, the following applies:

(i) In the source text "this part of IEC 62271" should read "this Australian Standard".

(ii) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms "normative" and "informative" are used in Standards to define the application of the appendices or annexes to which they apply. A "normative" appendix or annex is an integral part of a Standard, whereas an "informative" appendix or annex is only for information and guidance.

NOTES

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 201: AC solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV

FOREWORD

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International Standard IEC 62271-201 has been prepared by subcommittee 17C: High-voltage switchgear and controlgear assemblies, of IEC technical committee 17: Switchgear and controlgear.

This second edition cancels and replaces the first edition, published in 2006. This edition constitutes a technical revision.

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

a) apart from updating with the second edition of IEC 62271-200 (issued in 2011), definitions, classifications and testing procedures have been specified more precisely;
b) access to the solid-insulation enclosed switchgear and controlgear is now restricted to authorized personnel only. This implies that "accessibility class B" (public access) has been deleted throughout the document;

c) the term “protection category” has been introduced to replace the term “protection grade” (PA, PB1 and PB2)

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

FDIS	Report on voting
17C/594/FDIS	17C/597/RVD

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

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

This standard should be read in conjunction with IEC 62271-1:2007 and its Amendment 1:2011, 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 numbering, whilst additional subclauses are numbered from 101.

The reader's attention is drawn to the fact that Annex CC lists all of the “in-some-country” clauses on differing practices of a less permanent nature relating to the subject of this standard.

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 publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- 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 document using a colour printer.

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 201: AC solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV

1 General

1.1 Scope

This part of IEC 62271 specifies requirements for prefabricated solid-insulation enclosed switchgear and controlgear for alternating current of rated voltages above 1 kV and up to and including 52 kV for indoor installation and for service frequencies up to and including 60 Hz.

Access to the switchgear and controlgear is restricted to authorized personnel.

NOTE 1 For the use of this document high-voltage (IEC 60050-601:1985, 601-01-27) is the rated voltage above 1 000 V. However, medium voltage (IEC 60050-601:1985, 601-01-28) is commonly used for distribution systems with voltages above 1 kV and generally applied up to and including 52 kV; refer to [1] of Bibliography.

NOTE 2 Although primarily dedicated to three-phase systems, this standard can also be applied to single-phase or two-phase systems.

Enclosures may include fixed and removable components and may be filled with fluid (liquid or gas) to provide an extra insulation. For switchgear and controlgear containing gas-filled compartments, the design pressure is limited to a maximum of 300 kPa (relative pressure).

Solid-insulation enclosed switchgear and controlgear complying with this standard can be safely touched when energised.

Solid-insulation enclosed switchgear and controlgear for special use, for example, in flammable atmospheres, in mines or on board ships, may be subject to additional requirements.

Components contained in solid-insulation enclosed switchgear and controlgear are designed and tested in accordance with their various relevant standards. This standard supplements the standards for the individual components regarding their installation in switchgear and controlgear assemblies.

This standard does not preclude that other equipment may be included in the same enclosure. In such a case, any possible influence of that equipment on the switchgear and controlgear should be taken into account.

NOTE 3 Switchgear and controlgear assemblies having a metal enclosure are covered by IEC 62271-200 refer to [9] of Bibliography.

1.2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050 (all parts), *International Electrotechnical Vocabulary (IEV)* (available at www.electropedia.org)