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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 (IEC 62271-201:2006)

Hochspannungs-Schaltgeräte und -Schaltanlagen - Teil 201. Isolierstoffgekapselte Wechselstrom-Schaltanlagen für Bemessungsspannungen über 1 kV bis einschließlich 52 kV (IEC 62271-201:2006) (standards.iteh.ai)

Appareillage a haute tension - Partie 201: Appareillage sous enveloppe isolante pour courant alternatif de tensions assignées supérieures a 1 kV et inférieures ou égales a 52 kV (IEC 62271-201:2006)

**Ta slovenski standard je istoveten z: EN 62271-201:2006**

**ICS:**

29.130.10 Visokonapetostne stikalne in krmilne naprave High voltage switchgear and controlgear

**SIST EN 62271-201:2007**

**en,fr,de**

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English version

**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  
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Partie 201: Appareillage sous enveloppe  
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über 1 kV bis einschließlich 52 kV  
(IEC 62271-201:2006)

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SIST EN 62271-201:2007  
This European Standard was approved by CENELEC on 2006-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 17C/374/FDIS, future edition 1 of IEC 62271-201, prepared by SC 17C, High-voltage switchgear and controlgear assemblies, of IEC TC 17, Switchgear and controlgear, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62271-201 on 2006-10-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2007-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-10-01

This standard should be read in conjunction with EN 60694:1996 + A1:2000 + A2:2001, 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 EN 60694. Amendments to these clauses and subclauses are given under the same numbering, whilst additional subclauses are numbered from 101.

Annexes ZA and ZB have been added by CENELEC.

The contents of the corrigendum of November 2006 have been included in this copy.

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**Endorsement notice**

The text of the International Standard IEC 62271-201:2006 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62271-200      NOTE Harmonized as EN 62271-200:2004 (not modified).

---

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-151	1978	International Electrotechnical Vocabulary (IEV) Part 151: Electrical and magnetic devices	-	-
IEC 60050-441	1984	International Electrotechnical Vocabulary (IEV) Chapter 441: Switchgear, controlgear and fuses	-	-
IEC 60060-1 + corr. March	1989 1990	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60243-1	1998	Electrical strength of insulating materials - Test methods Part 1: Tests at power frequencies	EN 60243-1	1998
IEC 60265-1	1998	High-voltage switches Part 1: Switches for rated voltages above 1 kV and less than 52 kV	EN 60265-1	1998
IEC 60270	2000	High-voltage test techniques - Partial discharge measurements	EN 60270	2001
IEC 60470	2000	High-voltage alternating current contactors and contactor-based motor-starters	-	-
IEC 60480	2004	Guidelines for the checking and treatment of sulphur hexafluoride (SF <sub>6</sub> ) taken from electrical equipment and specification for its re-use	EN 60480	2004
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
IEC 60694	1996	Common specifications for high-voltage switchgear and controlgear standards	EN 60694 + corr. May	1996 1999
A1	2000		A1	2000
A2	2001		A2	2001
IEC 60909-0	2001	Short-circuit currents in three-phase a.c. systems Part 0: Calculation of currents	EN 60909-0	2001

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC/TS 60932	1988	Additional requirements for enclosed switchgear and controlgear from 1 kV to 72.5 kV to be used in severe climatic conditions	-	-
IEC 62271-100	2001	High-voltage switchgear and controlgear Part 100: High-voltage alternating-current circuit-breakers	EN 62271-100	2001
IEC 62271-102 + corr. April corr. May	2001 2002 2003	High-voltage switchgear and controlgear Part 102: Alternating current disconnectors and earthing switches	EN 62271-102 + corr. March	2002 2005
IEC 62271-105	2002	High-voltage switchgear and controlgear Part 105: Alternating current switch-fuse combinations	EN 62271-105	2003
ISO/IEC Guide 51	1999	Safety aspects - Guidelines for their inclusion - in standards		-

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## Annex ZB (informative)

### A-deviations

**A-deviation:** National deviation due to regulations, the alteration of which is for the time being outside the competence of the CENELEC national member.

This European Standard does not fall under any Directive of the EC.

In the relevant CENELEC countries these A-deviations are valid instead of the provisions of the European Standard until they have been removed.

<u>Clause</u>	<u>Deviation</u>
---------------	------------------

<b>General</b>	<b>Sweden</b> (ELSÄK-FS 2004:1)
----------------	---------------------------------

Only switchgear of class PB 2 of this standard is allowed.

<b>1.1</b>	<b>Italy</b> (Italian pressure vessel code for electrical switchgear DM 1 December 1980 and DM 10 September 1981, published in Gazzetta Ufficiale n° 285 dated 16.10.1981).
------------	---

For insulation-enclosed switchgear and controlgear containing gas-filled compartments, the design pressure is limited to a maximum of 0,5 bar (gauge) and the volume is limited to a maximum of 2 m<sup>3</sup>. Gas filled compartments having a design pressure exceeding 0,5 bar (gauge) or a volume exceeding 2 m<sup>3</sup> shall be designed according to Italian pressure vessel code for electrical switchgear

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INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

62271-201

Première édition  
First edition  
2006-06

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**Appareillage à haute tension –**

**Partie 201:**

**Appareillage sous enveloppe isolante  
pour courant alternatif de tensions assignées  
supérieures à 1 kV et inférieures ou égales  
à 52 kV**

(standards.iteh.ai)

**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**

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International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## 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**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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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 standard should be read in conjunction with IEC 60694, second edition, published in 1996, its Amendment 1 (2000) and its Amendment 2 (2001), 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 60694. Amendments to these clauses and subclauses are given under the same numbering, whilst additional subclauses are numbered from 101.

This standard cancels and replaces the IEC 60466, second edition, published in 1987 and its Amendment 1, published in 1994.

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

FDIS	Report on voting
17C/374/FDIS	17C/378/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.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.

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## 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

#### 1 General

##### 1.1 Scope

This part of IEC 62271 specifies requirements for factory-assembled 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.

Insulation-enclosed switchgear and controlgear complying with this standard can, in principle, be safely touched.

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 insulation-enclosed switchgear and controlgear should be 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 Switchgear and controlgear assemblies having a metal enclosure are covered by IEC 62271-200.

##### 1.2 Normative references

The following referenced documents are indispensable for the application 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 60050-151:1978, *International Electrotechnical Vocabulary (IEV) – Electrical and magnetic devices*

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

IEC 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60243-1:1998, *Electrical strength of insulating materials – Test methods – Part 1: Tests at power frequencies*

IEC 60265-1:1998, *High-voltage switches – Part 1: Switches for rated voltages above 1 kV and less than 52 kV*