

SLOVENSKI STANDARD

SIST EN 62271-203:2012

01-julij-2012

Nadomešča:

SIST EN 62271-203:2004

Visokonapetostne stikalne in krmilne naprave - 203. del: Plinsko izolirane stikalne naprave v kovinskih ohišjih za naznačene napetosti nad 52 kV (IEC 62271-203:2011)

High-voltage switchgear and controlgear - Part 203: Gas-insulated metal-enclosed switchgear for rated voltages above 52 kV (IEC 62271-203:2011)

iTeh STANDARD PREVIEW

Hochspannungs-Schaltgeräte und -Schaltanlagen - Teil 203: Gasisolierte metallgekapselte Schaltanlagen für Bemessungsspannungen über 52 kV (IEC 62271-203:2011)

[SIST EN 62271-203:2012](https://standards.iteh.ai/catalog/standards/sist/ef0b1dc1-4146-4d1d-bed7-51563a203/sist-en-62271-203-2012)

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Appareillage à haute tension - Partie 203: Appareillage sous enveloppe métallique à isolation gazeuse de tensions assignées supérieures à 52 kV (CEI 62271-203:2011)

Ta slovenski standard je istoveten z: EN 62271-203:2012

ICS:

| | | |
|-----------|--|---|
| 29.130.10 | Visokonapetostne stikalne in krmilne naprave | High voltage switchgear and controlgear |
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SIST EN 62271-203:2012

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62271-203

May 2012

ICS 29.130.10

Supersedes EN 62271-203:2004

English version

**High-voltage switchgear and controlgear -
Part 203: Gas-insulated metal-enclosed switchgear for rated voltages
above 52 kV
(IEC 62271-203:2011)**

Appareillage à haute tension -
Partie 203: Appareillage sous enveloppe
métallique à isolation gazeuse de tensions
assignées supérieures à 52 kV
(CEI 62271-203:2011)

Hochspannungs-Schaltgeräte und -
Schaltanlagen -
Teil 203: Gasisolierte metallgekapselte
Schaltanlagen für
Bemessungsspannungen über 52 kV
(IEC 62271-203:2011)

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This European Standard was approved by CENELEC on 2011-10-12. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, 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, Turkey and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 17C/512/FDIS, future edition 2 of IEC 62271-203, 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 approved by CENELEC as EN 62271-203:2012.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-11-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-10-12

This document supersedes EN 62271-203:2004.

EN 62271-203:2012 includes the following significant technical changes with respect to EN 62271-203:2004:

- adopting the structure and the content to EN 62271-1,
- harmonisation with IEEE C37.122,
- addition of the new Annex F and the new Annex G.

EN 62271-203:2012 should be read in conjunction with EN 62271-1:2008, 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 62271-1. Amendments to these clauses and subclauses are given under the same numbering, whilst additional subclauses, are numbered from 101.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62271-203:2011 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

| | | |
|------------------|------|---|
| IEC 60038 | NOTE | Harmonized as EN 60038. |
| IEC 60060-1 | NOTE | Harmonized as EN 60060-1. |
| IEC 60071-1:2006 | NOTE | Harmonized as EN 60071-1:2006 (not modified). |
| IEC 61462 | NOTE | Harmonized as EN 61462. |
| IEC 61672-1 | NOTE | Harmonized as EN 61672-1. |
| IEC 61672-2 | NOTE | Harmonized as EN 61672-2. |
| IEC 62155 | NOTE | Harmonized as EN 62155. |
| IEC 62271-207 | NOTE | Harmonized as EN 62271-207. |

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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 60044-1 (mod) | 1996 | Instrument transformers - Part 1: Current transformers | EN 60044-1 | 1999 |
| IEC 60044-2 (mod) | 1997 | Instrument transformers - Part 2: Inductive voltage transformers | EN 60044-2 ¹⁾ | 1999 |
| IEC 60068-2-11 | - | Environmental testing - Part 2: Tests - Test Ka: Salt mist | EN 60068-2-11 | - |
| IEC 60137 | 2008 | Insulated bushings for alternating voltages above 1 000 V | EN 60137 | 2008 |
| IEC 60141-1 | - | Tests on oil-filled and gas-pressure cables and their accessories Part 1: Oil-filled, paper- insulated, metal- sheathed cables and accessories for alternating voltages up to and including 400 kV | - | - |
| IEC 60270 | - | High-voltage test techniques - Partial discharge measurements | EN 60270 | - |
| IEC 60376 | - | Specification of technical grade sulfur hexafluoride (SF ₆) for use in electrical equipment | EN 60376 | - |
| IEC 60480 | - | Guidelines for the checking and treatment of sulphur hexafluoride (SF ₆) taken from electrical equipment and specification for its re-use | EN 60480 | - |
| IEC 60840 | - | Power cables with extruded insulation and their accessories for rated voltages above 30 kV (U _m = 36 kV) up to 150 kV (U _m = 170 kV) - Test methods and requirements | - | - |
| IEC/TS 61639 | 1996 | Direct connection between power transformers and gas-insulated metal- enclosed switchgear for rated voltages of 72,5 kV and above | - | - |
| IEC 62067 | - | Power cables with extruded insulation and their accessories for rated voltages above 150 kV (U _m = 170 kV) up to 500 kV (U _m = 550 kV) - Test methods and requirements | - | - |
| IEC 62271-1 | 2007 | High-voltage switchgear and controlgear - Part 1: Common specifications | EN 62271-1 | 2008 |
| IEC 62271-100 | 2008 | High-voltage switchgear and controlgear - Part 100: Alternating current circuit-breakers | EN 62271-100 | 2009 |

¹⁾ EN 60044-2 is superseded by EN 61869-3:2011, which is based on IEC 61869-3:2011.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|---|------------------------------|--|---|----------------------|
| IEC 62271-102 + corr. April + corr. February + corr. May | 2001 2002 2005 2003 | High-voltage switchgear and controlgear - Part 102: Alternating current disconnectors and earthing switches | EN 62271-102 + corr. July + corr. March | 2002 2008 2005 |
| IEC 62271-209 | 2007 | High-voltage switchgear and controlgear - Part 209: Cable connections for gas-insulated metal-enclosed switchgear for rated voltages above 52 kV - Fluid-filled and extruded insulation cables - Fluid-filled and dry-type cable-terminations | EN 62271-209 | 2007 |
| IEC/TR 62271-303 | - | High-voltage switchgear and controlgear - Part 303: Use and handling of sulphur hexafluoride (SF6) | CLC/TR 62271-303 | - |
| ISO 3231 | - | Paints and varnishes - Determination of resistance to humid atmospheres containing sulphur dioxide | EN ISO 3231 | - |

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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 member.

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

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

| <u>Article</u> | <u>Deviation</u> |
|----------------|------------------|
|----------------|------------------|

| | |
|----------------|---|
| 5.103.2 | Italy (Italian pressure vessel code for electrical switchgear DM 1 December 1980 and DM 10 September 1981 published in Gazzetta Ufficiale della Repubblica Italiana n° 285 dated 16.10.1981) |
|----------------|---|

For metal-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 m³. Gas filled compartments having a design pressure exceeding 0,5 bar (gauge) or a volume exceeding 2 m³ shall be designed according to the Italian pressure vessel code for electrical switchgear.

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IEC 62271-203

Edition 2.0 2011-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

High-voltage switchgear and controlgear –
Part 203: Gas-insulated metal-enclosed switchgear for rated voltages above
52 kV

Appareillage à haute tension –
Partie 203: Appareillage sous enveloppe métallique à isolation gazeuse de
tensions assignées supérieures à 52 kV

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE **XC**
CODE PRIX

ICS 29.130.10

ISBN 978-2-88912-664-4

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –**Part 203: Gas-insulated metal-enclosed switchgear
for rated voltages above 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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- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62271-203 has been prepared by subcommittee 17C: High-voltage switchgear and controlgear assemblies, of IEC technical committee 17: Switchgear and controlgear.

This second edition of IEC 62271-203 cancels and replaces the first edition of IEC 62271-203, published in 2003, and constitutes a technical revision.

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

- adopting the structure and the content to IEC 62271-1,
- harmonisation with IEEE C37.122,
- addition of the new Annex F and the new Annex G.

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

| | |
|--------------|------------------|
| FDIS | Report on voting |
| 17C/512/FDIS | 17C/524/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 reader's attention is drawn to the fact that Annex H lists all of the 'in-some-country' clauses on differing practices of a less permanent nature relating to the subject of this standard.

This International Standard should be read in conjunction with IEC 62271-1:2007, 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.

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

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