



SLOVENSKI STANDARD SIST EN 62271-205:2008

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High-voltage switchgear and controlgear - Part 205: Compact switchgear assemblies for rated voltages above 52 kV (IEC 62271-205:2008)

Hochspannungs-Schaltgeräte und -Schaltanlagen - Teil 205: Kompakte Schaltanlagenanordnungen für Bemessungsspannungen über 52 kV (IEC 62271-205:2008)

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Appareillage a haute tension - Partie 205: Ensembles d'appareillages compacts de tensions assignées supérieures a 52 kV (CEI 62271-205:2008)

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Ta slovenski standard je istoveten z: EN 62271-205:2008

ICS:

29.130.10	Visokonapetostne stikalne in krmilne naprave	High voltage switchgear and controlgear
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**High-voltage switchgear and controlgear -
Part 205: Compact switchgear assemblies
for rated voltages above 52 kV
(IEC 62271-205:2008)**

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Partie 205: Ensembles d'appareillages
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supérieures à 52 kV
(CEI 62271-205:2008)

Hochspannungs-Schaltgeräte
und -Schaltanlagen -
Teil 205: Kompakte
Schaltanlagenanordnungen für
Bemessungsspannungen über 52 kV
(IEC 62271-205:2008)

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This European Standard was approved by CENELEC on 2008-03-01. 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, Bulgaria, 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/418/FDIS, future edition 1 of IEC 62271-205, 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 62271-205 on 2008-03-01.

This standard is to be used in conjunction with EN 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 EN 62271-1. Amendments to these clauses and subclauses are given under the same numbering, whilst additional subclauses are numbered from 101.

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) 2008-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-03-01

Annexes ZA and ZB have been added by CENELEC.

iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of the International Standard IEC 62271-205:2008 was approved by CENELEC as a European Standard without any modification.

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

IEC 60044-6	NOTE Harmonized as EN 60044-6:1999 (not modified).
IEC 60516	NOTE Harmonized as HD 357 S2:1987 (not modified).
IEC 62271-2	NOTE Harmonized as EN 62271-2:2003 (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 60044-1 (mod)	- ¹⁾	Instrument transformers - Part 1: Current transformers	EN 60044-1	1999 ²⁾
IEC 60044-2 (mod)	- ¹⁾	Instrument transformers - Part 2: Inductive voltage transformers	EN 60044-2	1999 ²⁾
IEC 60044-3	- ¹⁾	Instrument transformers - Part 3: Combined transformers	EN 60044-3	2003 ²⁾
IEC 60044-5	- ¹⁾	Instrument transformers - Part 5: Capacitor voltage transformers	EN 60044-5	2004 ²⁾
IEC 60044-7	- ¹⁾	Instrument transformers - Part 7: Electronic voltage transformers	EN 60044-7	2000 ²⁾
IEC 60044-8	- ¹⁾	Instrument transformers - Part 8: Electronic current transformers	EN 60044-8	2002 ²⁾
IEC 60050-441	- ¹⁾	International Electrotechnical Vocabulary (IEV) - Chapter 441: Switchgear, controlgear and fuses	-	-
IEC 60099-4 (mod)	- ¹⁾	Surge arresters - Part 4: Metal-oxide surge arresters without gaps for a.c. systems	EN 60099-4	2004 ²⁾
IEC 60137	- ¹⁾	Insulated bushings for alternating voltages above 1 000 V	EN 60137	2003 ²⁾
IEC 60265-2	- ¹⁾	High-voltage switches - Part 2: High-voltage switches for rated voltages of 52 kV and above	EN 60265-2	1993 ²⁾
IEC 61462	- ¹⁾	Composite hollow insulators - Pressurized and unpressurized insulators for use in electrical equipment with rated voltage greater than 1 000 V - Definitions, test methods, acceptance criteria and design recommendations	EN 61462	2007 ²⁾
IEC/TS 61639	- ¹⁾	Direct connection between power transformers and gas-insulated metal-enclosed switchgear for rated voltages of 72,5 kV and above	-	-
IEC 61936-1	- ¹⁾	Power installations exceeding 1kV a.c. - Part 1: Common rules	-	-

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62155 (mod)	- ¹⁾	Hollow pressurized and unpressurized ceramic and glass insulators for use in electrical equipment with rated voltages greater than 1 000 V	EN 62155	2003 ²⁾
IEC 62271-1	- ¹⁾	High-voltage switchgear and controlgear - Part 1: Common specifications	-	-
IEC 62271-100	- ¹⁾	High-voltage switchgear and controlgear - Part 100: High-voltage alternating-current circuit-breakers	EN 62271-100	2001 ²⁾
IEC 62271-102	- ¹⁾	High-voltage switchgear and controlgear - Part 102: Alternating current disconnectors and earthing switches	EN 62271-102 + corr. March	2002 ²⁾ 2005
IEC 62271-108	- ¹⁾	High-voltage switchgear and controlgear - Part 108: High-voltage alternating current disconnecting circuit-breakers for rated voltages of 72,5 kV and above	EN 62271-108	2006 ²⁾
IEC 62271-203	- ¹⁾	High-voltage switchgear and controlgear - Part 203: Gas-insulated metal-enclosed switchgear for rated voltages above 52 kV	EN 62271-203	2004 ²⁾
IEC 62271-209	- ¹⁾	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 ²⁾

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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>
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5	Italy
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- (I.S.P.E.S.L.^{*)} Rules, 95 revision: VSR.8.B.1; VSR.8.B.2; M.15.D.2)

Italian laws apply to gas pressurized enclosures made of both insulating and metallic materials with a capacity of 25 litres or above, a design pressure higher than 0,05 kg/cm² and a temperature range: -25 °C/+100 °C (only for insulating materials).

Moreover the manufacturer of any electrical equipment which comprehends gas pressurized enclosures must submit the design of the pressurized enclosures itself to a proper legal Authority indicating the stresses and the loads which have any influence on the design itself. For each of the stresses the manufacturer must indicate the design values and the relevant computations.

- (I.S.P.E.S.L. Rules, 95 revision: VSR.8.B.1 and M.15.D.3. Table I for porcelain)

Only the use of porcelain type .A or S. (Aluminous or Siliceous) is permitted.

- (I.S.P.E.S.L. Rules, 95 revision: VSR.8.B.1 Clause 2)

The type test shall be performed in the presence of the Authority Supervisor.

- (I.S.P.E.S.L. Rules, 95 revision: VSR.8.B.2 Clause 2; M.15.D.4)

An additional pressure test shall be performed on a complete pressurized enclosure. This has to withstand 1,5 times the design pressure without failure for five minutes.

Temperature cycles test and electrical test shall be made; after these tests shall be carried out consecutively the pressure test at pressure $p \geq 4,25$ times the design pressure.

- (I.S.P.E.S.L. Rules, 95 revision: VSR.8.B.1 Subclause 4.1.2)

For a homogeneous batch of 100 pieces max., one hollow insulator shall be subjected to the failure test with a pressure 4,25 times the design pressure.

- (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 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.

^{*)} I.S.P.E.S.L.: Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro.

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

High-voltage switchgear and controlgear –
Part 205: Compact switchgear assemblies for rated voltages above 52 kV

Appareillage à haute tension –
Partie 205: Ensembles d'appareillages compacts de tensions assignées
supérieures à 52 kV

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INTERNATIONALE

PRICE CODE
CODE PRIX

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

**Part 205: Compact switchgear assemblies
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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International Standard IEC 62271-205 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 62271-1, first edition, 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.