SLOVENSKI STANDARD
SIST EN 62271-202:2007

01-november-2007

Visokonapetosne stikalne naparave- 202. del: Montaģna elektriļ na postaja (IEC 62271-202:2006)

High-voltage switchgear ands controlgear -- Part 202: High voltage/low voltage prefabricated substation (IEC 62271-202:2006)

Hochspannungs-Schaltgeräte und -Schaltanlagen - Teil 202: Fabrikfertige Stationen für Hochspannung/Niederspannung (IEC 62271-202:2006)

Appareillage a haute tension -- Partie 202: Postes préfabriqués haute tension/basse tension (IEC 62271-202:2006)

Ta slovenski standard je istoveten z: **EN 62271-202:2007**

ICS:

29.130.10	Visokonapetostne stikalne in krmilne naprave	High voltage switchgear and controlgear

SIST EN 62271-202:2007 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62271-202

February 2007

ICS 29.130.10

Supersedes EN 61330:1996

English version

High-voltage switchgear and controlgear - Part 202: High voltage/low voltage prefabricated substation

(IEC 62271-202:2006)

Appareillage à haute tension -
Partie 202: Postes préfabriqués
haute tension/basse tension
(CEI 62271-202:2006)

Hochspannungs-Schaltgeräte
und -Schaltanlagen -
Teil 202: Fabrikfertige Stationen
für Hochspannung/Niederspannung
(IEC 62271-202:2006)

This European Standard was approved by CENELEC on 2006-09-01. 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

Ref. No. EN 62271-202:2007 E

Foreword

The text of document 17C/371/FDIS, future edition 1 of IEC 62271-202, 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 62271-202 on 2006-09-01.

This European Standard supersedes EN 61330:1996.

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)	2007-09-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2009-09-01

Annexes ZA and ZB have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62271-202:2006 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 60076-5	NOTE	Harmonized as EN 60076-5:2006 (not modified).
IEC 60243-1	NOTE	Harmonized as EN 60243-1:1998 (not modified).
IEC 60947-1	NOTE	Harmonized as EN 60947-1:2004 (not modified).
ISO 3231	NOTE	Harmonized as EN ISO 3231:1997 (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.

Publication	Year	Title	EN/HD	Year
IEC 60076	Series	Power transformers	EN 60076	Series
IEC 60076-1	-[1)]	Power transformers - Part 1: General	EN 60076-1 + A11 + A12	1997[2)] 1997 2002
IEC 60076-2	-[1)]	Power transformers - Part 2: Temperature rise	EN 60076-2	1997[2)]
IEC 60076-5	-[1)]	Power transformers - Part 5: Ability to withstand short circuit	EN 60076-5	2006[2)]
IEC 60076-10	-[1)]	Power transformers - Part 10: Determination of sound levels	EN 60076-10	2001[2)]
IEC 60076-11	-[1)]	Power transformers - Part 11: Dry-type transformers	EN 60076-11	2004[2)]
IEC 60364-4-41	-[1)]	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41	2007[2)]
IEC 60439-1	-[1)]	Low-voltage switchgear and controlgear assemblies - Part 1: Type-tested and partially type-tested assemblies	EN 60439-1	1999[2)]
IEC 60466[3)]	-[1)]	AC insulation-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 38 kV	-	-
IEC 60529	-[1)]	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991[2)] 1993
IEC 60664-1	-[1)]	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	2003[2)]
IEC 60694	-[1)]	Common specifications for high-voltage switchgear and controlgear standards	EN 60694 + corr. May	1996[2)] 1999

[1)] Undated reference.

[2)] Valid edition at date of issue.

[3)] IEC 60466 is superseded by IEC 62271-201:2006; which is harmonized as EN 62271-201:2006.

Publication	Year	Title	EN/HD	Year
IEC 60721-1	-[1)]	Classification of environmental conditions - Part 1: Environmental parameters and their severities	EN 60721-1	1995[2)]
IEC 60721-2-2	-[1)]	Classification of environmental conditions - Part 2: Environmental conditions appearing in nature - Precipitation and wind	HD 478.2.2 S1	1990[2)]
IEC 60721-2-4	-[1)]	Classification of environmental conditions -- Part 2: Environmental conditions appearing in nature -- Solar radiation and temperature	HD 478.2.4 S1	1989[2)]
IEC 60815	-[1)]	Guide for the selection of insulators in respect of polluted conditions	-	-
IEC 60905	-[1)]	Loading guide for dry-type power transformers	-	-
IEC 61166	-[1)]	High-voltage alternating current circuit-breakers - Guide for seismic qualification of high-voltage alternating current circuit-breakers	EN 61166	1993[2)]
IEC 61180-1	-[1)]	High-voltage test techniques for low-voltage equipment - Part 1: Definitions, test and procedure requirements	EN 61180-1	1994[2)]
IEC 61936-1	-[1)]	Power installations exceeding 1kV a.c. - Part 1: Common rules	-	-
IEC 62262	-[1)]	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	EN 62262	2002[2)]
IEC 62271-200	-[1)]	High-voltage switchgear and controlgear - Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV	EN 62271-200	2004[2)]
ISO/IEC Guide 51	-[1)]	Safety aspects - Guidelines for their inclusion in standards	-	-
ISO 1052	-[1)]	Steels for general engineering purposes	-	-
ISO 1182	-[1)]	Reaction to fire tests for building products - Non-combustibility test	EN ISO 1182	2002[2)]
ISO 1716	-[1)]	Reaction to fire tests for building products - Determination of the heat of combustion	EN ISO 1716	2002[2)]
ISO 6508-1	-[1)]	Metallic materials - Rockwell hardness test - Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)	EN ISO 6508-1	2005[2)]

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.

Clause	Deviation
5.1	**Belgium** (Wiring rules: Règlement Général sur les Installations Electriques, R.G.I.E. § 71 et 72.02) The cross-section of conductor shall be not less than 25 mm^2.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
62271-202

Première édition
First edition
2006-06

Appareillage à haute tension –

Partie 202: Postes préfabriqués haute tension/basse tension

High-voltage switchgear and controlgear –

Part 202: High-voltage/low-voltage prefabricated substation

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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For price, see current catalogue

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 202: High-voltage/low-voltage prefabricated substation

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 62271-202 has been prepared by subcommittee 17C: High-voltage switchgear and controlgear assemblies, of IEC technical committee 17: Switchgear and controlgear.

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

FDIS	Report on voting
17C/371/FDIS	17C/375/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 following standards belong to the same IEC 62271 series, under the general title *High-voltage switchgear and controlgear:*

Part 200: AC metal-enclosed switchgear and controlgear for rate voltages above 1 kV and up to and including 53 kV

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

Part 203: Gas-insulated metal-enclosed switchgear for rated voltages above 52 kV

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.

INTRODUCTION

Prefabricated substations are defined as a type-tested assembly comprising an enclosure containing transformers, low-voltage and high-voltage switchgear, connections and auxiliary equipment to supply low-voltage energy from a high-voltage system or vice versa. These substations are in locations accessible to the public and should ensure protection to persons according to the specified service conditions.

This means that, in addition to the specified characteristics, ratings and relevant test procedures, particular attention has been paid to the specification concerning the protection of persons, both operators and general public. Use of type-tested components and suitable design and construction of the enclosure ensure this protection. The correct design and performance of the prefabricated substation are verified by means of relevant type tests described in this standard, including internal arc tests.