



SLOVENSKI STANDARD

SIST EN 61264:2000

01-februar-2000

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SIST EN 50062:1995

Ceramic pressurized insulators for high-voltage switchgear and controlgear (IEC 61264:1998)

Ceramic pressurized hollow insulators for high-voltage switchgear and controlgear

Druckbeanspruchte Hohlisolatoren aus keramischem Werkstoff für Hochspannungs-Schaltgeräte und Schaltanlagen

Enveloppes isolantes sous pression en matière céramique pour l'appareillage haute tension

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Ta slovenski standard je istoveten z: EN 61264:1998

ICS:

29.080.10

Izolatorji

Insulators

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61264

November 1998

ICS 29.080.10

Supersedes EN 50062:1991

English version

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for high-voltage switchgear and controlgear
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This European Standard was approved by CENELEC on 1998-10-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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 36C/94/FDIS, future edition 2 of IEC 61264, prepared by SC 36C, Insulators for substations, of IEC TC 36, Insulators, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61264 on 1998-10-01.

This European Standard supersedes EN 50062:1991.

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) 1999-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2001-07-01

This European Standard supplements and modifies, if necessary, the corresponding clauses of HD 329 S1:1977, which applies to unpressurized hollow insulators.

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annex ZA is normative and annexes A, B and C are informative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61264:1998 was approved by CENELEC as a European Standard without any modification.

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

IEC 60672-1:1995 NOTE: Harmonized as EN 60672-1:1995 (not modified).

Annex ZA (normative)**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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(471) | 1984 | International Electrotechnical Vocabulary (IEV) Chapter 471: Insulators | - | - |
| IEC 60056 (mod) + A3 | 1987 1996 | High-voltage alternating-current circuit-breakers | HD 348 S7 | 1998 |
| IEC 60168 | 1994 | Tests on indoor and outdoor post insulators of ceramic material or glass for systems with nominal voltages greater than 1 kV | EN 60168 | 1994 |
| IEC 60233 | 1974 | Tests on hollow insulators for use in electrical equipment | HD 329 S1 | 1977 |
| IEC 60672-3 | 1997 | Ceramic and glass-insulating materials. Part 3: Specifications for individual materials | EN 60672-3 | 1997 |
| IEC 60694 | 1996 | Common specifications for high-voltage switchgear and controlgear standards | EN 60694 + corr. April | 1996 1998 |
| IEC 60865-1 | 1993 | Short-circuit currents - Calculation of effects Part 1: Definitions and calculation methods | EN 60865-1 | 1993 |
| IEC 61166 | 1993 | High-voltage alternating current circuit-breakers - Guide for seismic qualification of high-voltage alternating current circuit-breakers | EN 61166 | 1993 |
| ISO 4287 | 1997 | Geometrical Product Specification (GPS) Surface texture: Profile method - Terms, definitions and surface texture parameters | - | - |
| ISO 4287-2 | 1984 | Surface roughness - Terminology Part 2: Measurement of surface roughness parameters | - | - |

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|------------------------|-------------|---|--------------|-------------|
| EN 50062 ¹⁾ | 1991 | Ceramic pressurized hollow insulators for high-voltage switchgear and controlgear | - | - |

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1) EN 50062 is now superseded by EN 61264:1998.

**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

61264

Deuxième édition
Second edition
1998-10

**Enveloppes isolantes sous pression en matière
céramique pour l'appareillage haute tension**

**Ceramic pressurized hollow insulators for
high-voltage switchgear and controlgear
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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

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For price, see current catalogue*

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CERAMIC PRESSURIZED HOLLOW INSULATORS FOR HIGH-VOLTAGE
SWITCHGEAR AND CONTROLGEAR

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61264 has been prepared by subcommittee 36C: Insulators for substations, of IEC technical committee 36: Insulators. It is based on CENELEC publication EN 50062.

This second edition cancels and replaces the first edition published in 1994 and constitutes a technical revision.

This standard supplements and modifies, if necessary, IEC 60233, which applies to unpressurized hollow insulators.

This bilingual version (1999-01) replaces the English version.

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

| FDIS | Report on voting |
|-------------|------------------|
| 36C/94/FDIS | 36C/101/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.

Annexes A, B and C are for information only.

The french version of this standard has not been voted upon.

INTRODUCTION

Technical improvements to this International Standard have been made in the following areas:

- guidance for load combinations: it is made clear that other combinations might exist and that operating loads, if existent, should be considered;
- information on mechanical strength: this should be collected during testing for a possibility of statistical evaluation;
- geometrical tolerances.

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CERAMIC PRESSURIZED HOLLOW INSULATORS FOR HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR

1 Scope and object

This International Standard applies to hollow insulators made of ceramic material, with their fixing devices, intended for use with a **permanent gas pressure** greater than 50 kPa gauge having an internal volume equal to or greater than 1 l (1 000 cm³). They are intended for use in electrical equipment operating on alternating current with a rated voltage greater than 1 000 V and a frequency not greater than 100 Hz or for use in direct current equipment with a rated voltage greater than 1 500 V.

NOTE 1 – The gas can be: dry air, inert gases, e.g. sulphur hexafluoride or nitrogen or a mixture of such gases.

NOTE 2 – Hollow insulators are intended for use in electrical equipment with a permanent gas pressure, for example

- circuit-breakers,
- switch-disconnectors,
- disconnectors,
- earthing switches,
- instrument transformers,
- surge arresters,
- bushings,
- cable sealing ends.

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The object of this standard is

- to define terms used; [SIST EN 61264:2000](https://standards.iteh.ai/catalog/standards/sist/f44a3db5-7ee2-4607-93af-340c54c58838/sist-en-61264-2000)
- to prescribe design rules; <https://standards.iteh.ai/catalog/standards/sist/f44a3db5-7ee2-4607-93af-340c54c58838/sist-en-61264-2000>
- to prescribe test procedures and test values

regarding pressure and bending stresses for hollow insulators.

It is not the object of this standard to prescribe dielectric tests, because the withstand voltages are not characteristics of the hollow insulator itself, but of the apparatus of which it ultimately forms a part.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEV 60050(471):1984, *International Electrotechnical Vocabulary (IEV) – Chapter 471: Insulators*

IEC 60056:1987, *High-voltage alternating-current circuit-breakers*