SLOVENSKI STANDARD
SIST EN 60079-2:2008

01-marec-2008

Nadomeġļa:
SIST EN 60079-2:2005

Eksplozivne atmosfere - 2. del: Zaġļita opreme z nadtlakom "p" (IEC 60079-2:2007)

Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"

Explosionsfähige Atmosphäre - Teil 2: Geräteschutz durch Überdruckkapselung "p"

Atmospheres explosives - Partie 2: Protection du matériel par enveloppe a surpression interne "p"

Ta slovenski standard je istoveten z: **EN 60079-2:2007**

ICS:

29.260.20	Elektriļ ni aparati za eksplozivna ozraļ ja	Electrical apparatus for explosive atmospheres

SIST EN 60079-2:2008 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60079-2

November 2007

ICS 29.260.20

Supersedes EN 60079-2:2004

English version

Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"

(IEC 60079-2:2007)

Atmosphères explosives -
Partie 2: Protection du matériel
par enveloppe à surpression interne "p"
(CEI 60079-2:2007)

Explosionsfähige Atmosphäre -
Teil 2: Geräteschutz
durch Überdruckkapselung "p"
(IEC 60079-2:2007)

This European Standard was approved by CENELEC on 2007-11-01. 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 60079-2:2007 E

Foreword

The text of document 31/668/FDIS, future edition 5 of IEC 60079-2, prepared by IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-2 on 2007-11-01.

This European Standard supersedes EN 60079-2:2004 + corrigendum April 2006.

The significant changes with respect to EN 60079-2:2004 are listed below:

– introduction of the “Equipment protection level concept” – See Annex H;
– 3.13 eliminate reference to “room” in the definition of pressurization;
– 5.3.3 restrict to type px;
– 5.3.3 add warning for type pz and type py for any cover removable without the use of a tool;
– 7.6 move wording “For type px” to beginning of subclause to clarify 7.6 only applies to type px;
– 7.7 c) clarify that the instruction label should specify purge time and pressure/flow;
– 18.7 collect marking requirements throughout the document in the “Marking” clause.

This European Standard is to be read in conjunction with EN 60079-0:2006.

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) 2008-08-01
– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-11-01

This European Standard was prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and supports the essential requirements of Directive 94/9/EC. See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60079-2:2007 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 60051	NOTE	Harmonized in EN 60051 series (not modified).
IEC 60079-1	NOTE	Harmonized as EN 60079-1:2007 (not modified).
IEC 60079-5	NOTE	Harmonized as EN 60079-5:2007 (not modified).
IEC 60079-6	NOTE	Harmonized as EN 60079-6:2007 (not modified).
IEC 60079-7	NOTE	Harmonized as EN 60079-7:2007 (not modified).
IEC 60079-11	NOTE	Harmonized as EN 60079-11:2007 (not modified).
IEC 60079-15	NOTE	Harmonized as EN 60079-15:2005 (not modified).
IEC 60079-18	NOTE	Harmonized as EN 60079-18:2004 (not modified).
IEC 60079-26	NOTE	Harmonized as EN 60079-26:2007 (not modified).
IEC 60079-28	NOTE	Harmonized as EN 60079-28:2007 (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 60034-5	–[1)]	Rotating electrical machines - Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) - Classification	EN 60034-5	2001[2)]
IEC 60050-151	–[1)]	International Electrotechnical Vocabulary - Part 151: Electrical and magnetic devices	–	–
IEC 60050-426	–[1)]	International Electrotechnical Vocabulary - Chapter 426: Electrical apparatus for explosive atmospheres	–	–
IEC 60079-0 (mod)	2004	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements	EN 60079-0	2006
IEC 60112	–[1)]	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN 60112	2003[2)]
IEC 60529	–[1)]	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991[2)] 1993
IEC 60664-1	1992	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1 [3)]	2003

1) Undated reference.

2) Valid edition at date of issue.

3) EN 60664-1:2003, which includes A1:2000 + A2:2002 to IEC 60664-1:1992, is superseded by EN 60664-1:2007, which is based on IEC 60664-1:2007.

Annex ZZ
(informative)

Coverage of Essential Requirements of EC Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers only the following essential requirements out of those given in Annex II of the EC Directive 94/9/EC:

- ER 1.0.1 to ER 1.0.6;
- ER 1.2.1, ER 1.2.2 (partly), ER 1.2.3, ER 1.2.6 to ER 1.2.8;
- ER 1.3.1, ER 1.3.5;
- ER 1.4.1 (partly);
- ER 1.5.1 to ER 1.5.8;
- ER 1.6.2 (partly), ER 1.6.3 to ER 1.6.5;
- ER 2.0.2.1, ER 2.0.2.2;
- ER 2.2.1, ER 2.2.1.1 to ER 2.2.1.3;
- ER 2.3.1, ER 2.3.1.1, ER 2.3.1.2.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
60079-2

Cinquième édition
Fifth edition
2007-02

Atmosphères explosives –

Partie 2: Protection du matériel par enveloppe à surpression interne «p»

Explosive atmospheres –

Part 2: Equipment protection by pressurized enclosure «p»

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

EXPLOSIVE ATMOSPHERES –

Part 2: Equipment protection by pressurized enclosure "p"

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 60079-2 has been prepared by technical committee 31: Explosive atmospheres.

This fifth edition cancels and replaces the fourth edition published in 2001 and constitutes a technical revision.

The significant changes with respect to the previous edition are listed below:

– Introduction of the "Equipment protection level concept" – See Annex H.
– 3.13 Eliminate reference to "room" in the definition of pressurization.
– 5.3.3 Restrict to type px.
– 5.3.3 Add warning for type pz and type py for any cover removable without the use of a tool.

– 7.6 Move wording “For type px” to beginning of subclause to clarify 7.6 only applies to type px.

– 7.7 c) Clarify that the instruction label should specify purge time and pressure/flow.

– 18.7 Collect marking requirements throughout the document in the “Marking” clause.

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

FDIS	Report on voting
31/668/FDIS	31/681/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 standard is to be read in conjunction with IEC 60079-0:2004, *Electrical apparatus for explosive gas atmospheres – Part 0: General requirements.*

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of IEC 60079 series, under the general title *Explosive atmospheres* can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the new edition.

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

This part of IEC 60079 gives requirements for the design, construction, testing and marking of electrical apparatus for use in potentially explosive atmospheres in which

a) a protective gas maintained at a pressure above that of the external atmosphere is used to guard against the formation of an explosive gas atmosphere within enclosures which do not contain an internal source of release of flammable gas or vapour and, where necessary;

b) a protective gas is provided in sufficient quantity to ensure that the resultant mixture concentration around the electrical parts is maintained at a value outside the explosive limit appropriate to the particular conditions of use. The protective gas is supplied to an enclosure containing one or more internal sources of release in order to guard against the formation of an explosive gas atmosphere.

This standard includes requirements for the apparatus and its associated equipment including the inlet and exhaust ducts, and also for the auxiliary control apparatus necessary to ensure that pressurization and/or dilution is established and maintained.