



SLOVENSKI STANDARD SIST EN 60079-30-1:2007

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Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements

Explosionsfähige Atmosphäre - Teil 30-1: Elektrische Widerstands-Begleitheizungen - Allgemeine Anforderungen und Prüfanforderungen

Atmospheres explosives - Partie 30-1: Tracage par résistance électrique - Exigences générales et d'essais

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Ta slovenski standard je istoveten z: EN 60079-30-1:2007

ICS:

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SIST EN 60079-30-1:2007 en,fr,de

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English version

**Explosive atmospheres -
Part 30-1: Electrical resistance trace heating -
General and testing requirements
(IEC 60079-30-1:2007)**

Atmosphères explosives -
Partie 30-1: Traçage
par résistance électrique -
Exigences générales et d'essais
(CEI 60079-30-1:2007)

Explosionsfähige Atmosphäre -
Teil 30-1: Elektrische
Widerstands-Begleitheizungen -
Allgemeine Anforderungen
und Prüfanforderungen
(IEC 60079-30-1:2007)

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This European Standard was approved by CENELEC on 2007-03-01. 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 31/661/FDIS, future edition 1 of IEC 60079-30-1, prepared by IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-30-1 on 2007-03-01.

This European Standard supersedes EN 62086-1:2005.

The general revisions and updating to produce EN 60079-30-1:2007, with respect to EN 62086-1:2005, are a result of national comments received.

The main technical differences, apart from the general revision and updating of EN 62086-1:2005, are as follows:

- the inclusion of thermal safety requirements for the manufacturer's quality programme;
- the inclusion of a 14 day water resistance test;
- the further harmonization of this standard with several national standards.

This standard is to be used in conjunction with EN 60079-30-2:2007, *Explosive atmospheres – Part 30-2: Electrical resistance trace heating – Application guide for design, installation and maintenance*.

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) 2007-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-03-01

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This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive ATEX (94/9/EC). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60079-30-1:2007 was approved by CENELEC as a European Standard without any modification.

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 60050-151	- ¹⁾	International Electrotechnical Vocabulary (IEV) - Part 151: Electrical and magnetic devices	-	-
IEC 60079-0 (mod)	2004	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements	EN 60079-0	2006
IEC 60079-7	2001	Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety "e"	EN 60079-7 ²⁾	2003
IEC 60079-10	2002	Electrical apparatus for explosive gas atmospheres - Part 10: Classification of hazardous areas	EN 60079-10	2003
IEC 60079-30-2	- ¹⁾	Explosive atmospheres - Part 30-2: Electrical resistance trace heating - Application guide for design, installation and maintenance	EN 60079-30-2	2007 ³⁾
IEC 60364-5-55 (mod)	- ¹⁾	Electrical installations of buildings - Part 5-55: Selection and erection of electrical equipment - Other equipment	HD 60364-5-559	2005 ³⁾

¹⁾ Undated reference.

²⁾ EN 60079-7 is superseded by EN 60079-7:2007, which is based on IEC 60079-7:2006.

³⁾ Valid edition at date of issue.

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 relevant essential requirements out of those given in Annex II of the EC Directive 94/9/EC

- ER 1.0.1, ER 1.0.2, ER 1.0.4, ER 1.05, 1.06 (partly)
- ER 1.1
- ER 1.2.1 (partly), ER 1.2.2 (partly), ER 1.2.5, ER 1.2.8
- ER 1.3.1 (partly), ER 1.3.3, ER 1.3.4 (partly),
- ER 1.4.1 (partly), ER 1.4.2
- ER 1.6.4
- ER 2.2.1.1 to ER 2.2.1.3
- 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.

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

60079-30-1

Première édition
First edition
2007-01

Atmosphère explosives –

Partie 30-1:

**Traçage par résistance électrique –
Exigences générales et d'essais**

iTeh STANDARD PREVIEW

Explosive atmospheres –

Part 30-1: IEC 60079-30-1:2007

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**Electrical resistance trace heating –
General and testing requirements**

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International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
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For price, see current catalogue*

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

EXPLOSIVE ATMOSPHERES –**Part 30-1: Electrical resistance trace heating –
General and testing requirements**

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 60079-30-1 has been prepared by IEC technical committee 31: Equipment for explosive atmospheres.

This edition cancels and replaces the first edition of IEC 62086-1 published in 2001 and constitutes a technical revision.

The general revisions and updating to produce the first edition of IEC 60079-30-1, with respect to former edition of IEC 62086-1, are a result of national comments received.

The main technical differences, apart from the general revision and updating of former edition of IEC 62086-1, are as follows:

- a) the inclusion of thermal safety requirements for the manufacturer's quality programme;
- b) the inclusion of a 14 day water resistance test;
- c) the further harmonization of this edition with several national standards.

This Part 30-1 is intended to be used in conjunction with the first edition of IEC 60079-30-2: 2006, *Explosive atmospheres – Part 30-2: Electrical resistance trace heating – Application guide for design, installation and maintenance*.

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

FDIS	Report on voting
31/661/FDIS	31/671/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 list of all parts of IEC 60079 series, under the general title *Explosive atmospheres*, can be found on the IEC website.

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.

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INTRODUCTION

This part of IEC 60079 is intended to provide a comprehensive overview of the essential requirements and testing appropriate to electric surface heating equipment used in explosive gas atmospheres. The requirements of this standard are considered to be the minimum requirements for zone 1 or zone 2. While some of this work already exists in national standards or international standards, this standard has collated much of this existing work and considerably added to it.

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EXPLOSIVE ATMOSPHERES –

Part 30-1: Electrical resistance trace heating – General and testing requirements

1 Scope

This part of IEC 60079 specifies general and testing requirements for electrical resistance trace heaters for application in explosive gas atmospheres. The standard covers trace heaters that may comprise either factory- or field- (work-site) assembled units, and which may be series heating cables, parallel heating cables or heating pads and heating panels that have been assembled and/or terminated in accordance with the manufacturer's instructions.

This standard also includes requirements for termination assemblies and control methods used with trace heating. The hazardous areas referred to by this standard are those defined in IEC 60079-10.

Where a requirement of this standard conflicts with a requirement of IEC 60079-0, the requirement of this standard shall take precedence.

2 Normative references

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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.

IEC 60050(151), *International Electrotechnical Vocabulary (IEV) – Part 151: Electrical and magnetic devices*

IEC 60079-0:2004, *Electrical apparatus for explosive gas atmospheres – Part 0: General requirements*

IEC 60079-7:2001, *Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety 'e'*

IEC 60079-10:2002, *Electrical apparatus for explosive gas atmospheres – Part 10: Classification of hazardous areas*

IEC 60079-30-2, *Explosive atmospheres – Part 30-2: Electrical resistance trace heating – Application guide for design, installation and maintenance*

IEC 60364-5-55, *Electrical installations of buildings – Part 5-55: Selection and erection of electrical equipment – Other equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60079-0 and IEC 60079-7 as well as the following apply.