SVENSK STANDARD SS-EN 60079-26

Fastställd	Utgåva	Sida	Ansvarig kommitté
2007-08-13	2	1 (1+23)	SEK TK 31

Explosiv atmosfär –
Del 26: Utrustning med skyddsnivå (EPL) Ga

Explosive atmospheres –
Part 26: Equipment with equipment protection level (EPL) Ga

Som svensk standard gäller europastandarden EN 60079-26:2007. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60079-26:2007.

Nationellt förord

Europastandarden EN 60079-26:2007

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 60079-26, Second edition, 2006 - Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60079-26, utgåva 1, 2005, gäller ej fr o m 2009-10-01.

ICS 29.260.20

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

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Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

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Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60079-26

March 2007

ICS 29.260.20

Supersedes EN 60079-26:2004

English version

Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

(IEC 60079-26:2006)

Atmosphères explosives -
Partie 26: Matériel d'un niveau
de protection du matériel (EPL) Ga
(CEI 60079-26:2006)

Explosionsfähige Atmosphäre -
Teil 26: Betriebsmittel
mit Geräteschutzniveau (EPL) Ga
(IEC 60079-26:2006)

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 60079-26:2007 E

Foreword

The text of document 31/630/FDIS, future edition 2 of IEC 60079-26, prepared by IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-26 on 2006-10-01.

This European Standard supersedes EN 60079-26:2004.

The significant changes with respect to EN 60079-26:2004 are:

– changes concerning the accessible chargeable surfaces of the equipment;

– requirements of a partition wall combined with an air-gap with natural ventilation;

– introduction of equipment protection levels (EPL) and substitution of the references to zones (see explanation in Annex A);

– change of heading from “Mechanical connection” to “Process connection” together with a clarification of requirement for any release from Zone 0 of explosive gas atmospheres.

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) 2007-10-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-10-01

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 94/9/EC. See Annex ZZ.

This European Standard covers Category 1G and combined Category 1/2G electrical equipment.

NOTE Other EC Directives may be applicable

To be in line with the requirements given in Directive 94/9/EC the text given in the body of the standard should be interpreted as given in the following table.

Text given in EN 60079-26	Adaptation to Directive 94/9/EC
Part 26: Equipment with equipment protection level (EPL) Ga	**Part 26: Construction, test and marking of Group II Category 1G electrical equipment**
EPL Ga equipment	Category 1G equipment
EPL Gb type of protection	Category 2G type of protection

Instead of the marking requirements given in Clause 6 of this standard, the apparatus shall be marked according to the requirements of the Directive 94/9/EC for equipment Group II, Category 1G.

Apparatus intended for installation in the boundary wall between areas requiring different categories shall have both categories marked on the label separated by a “/” (see examples below). Additionally, the apparatus shall be marked according to the type of protection as defined in Clause 6.

Examples of marking in compliance with Directive 94/9/EC

a) Apparatus which is intended to be completely installed inside the Zone 0 area for example:

 II 1G

b) Associated apparatus, which is installed outside the hazardous area and providing external electrical circuits protected by intrinsic safety “ia” according to EN 60079-11, which can be connected to Category 1 apparatus , for example:

 II (1)G

NOTE No designation of the temperature class is required, as this apparatus is located outside the hazardous area.

c) Equipment which is installed in the boundary wall between areas requiring different categories, both categories are marked on the label separated by a slash for example:

 II 1/2G

Annexes ZA and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60079-26:2006 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 60079-2	NOTE	Harmonized as EN 60079-2:2004 (not modified).
IEC 60079-7	NOTE	Harmonized as EN 60079-7:2007 (not modified).
IEC 60079-14	NOTE	Harmonized as EN 60079-14:2003 (not modified).
IEC 60079-15	NOTE	Harmonized as EN 60079-15:2005 (not modified).
IEC 60079-26	NOTE	Harmonized as EN 60079-26:2004 (not modified).
IEC 60079-28	NOTE	Harmonized as EN 60079-28:2007 (not modified).
IEC 60529	NOTE	Harmonized as EN 60529:1991 (not modified).
IEC 61241-0	NOTE	Harmonized as EN 61241-0:2006 (modified).
IEC 61241-4	NOTE	Harmonized as EN 61241-4:2006 (not modified).
IEC 61241-10	NOTE	Harmonized as EN 61241-10:2004 (not modified).
IEC 61241-11	NOTE	Harmonized as EN 61241-11:2006 (not modified).
IEC 61241-18	NOTE	Harmonized as EN 61241-18:2004 (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 60079-0 (mod)	2004	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements	EN 60079-0	2006
IEC 60079-1	- [1)]	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'	EN 60079-1 + corr. April	2004 [2)] 2006
IEC 60079-10	- [1)]	Electrical apparatus for explosive gas atmospheres - Part 10: Classification of hazardous areas	EN 60079-10	2003 [2)]
IEC 60079-11	- [1)]	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	EN 60079-11	2006 [2)]
IEC 60079-18	- [1)]	Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation "m" electrical apparatus	EN 60079-18 + corr. April	2004 [2)] 2006
IEC 60695-11-10	- [1)]	Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10	1999 [2)]

[1)] Undated reference.

[2)] Valid edition at date of issue.

CONTENTS

EXPLOSIVE ATMOSPHERES –

Part 26: Equipment with equipment protection level (EPL) Ga

1 Scope

This part of IEC 60079 specifies the particular requirements for construction, test and marking for electrical equipment that provides equipment protection level (EPL) Ga. This electrical equipment, within the operational parameters specified by the manufacturer, ensures a very high level of protection that includes rare faults related to the equipment or two faults occurring independently of each other.

NOTE 1 A malfunction may result from a failure of the component parts of the electrical equipment or from anticipated externally applied influences. Two independent malfunctions which may occur more frequently and which, separately, would not create an ignition hazard but which, in combination, could create a potential ignition hazard, should be regarded as occurring together to form a rare fault.

NOTE 2 This electrical equipment is intended for use in zone 0 hazardous areas, in which explosive gas atmospheres caused by mixtures of air and gases, vapours or mists under normal atmospheric conditions are present continuously, for long periods or frequently.

This standard also applies to equipment mounted across a boundary where different protection levels may be required.

EXAMPLE: In the wall of a storage vessel containing zone 0 with an ambient defined as zone 1.

This standard also applies to equipment installed in an area requiring a lower protection level, but electrically connected to equipment with equipment protection level (EPL) Ga (associated apparatus).

This standard supplements the general requirements in IEC 60079-0 and the requirements of the standardized types of protection, in accordance with the IEC 60079 series, to adapt the level of safety provided by those standards in order to provide EPL Ga.

NOTE 3 In designing equipment for operation in explosive gas atmospheres under conditions other than the atmospheric conditions given in IEC 60079-0, this standard may be used as a guide. However, additional testing is recommended related specifically to the intended conditions of use. This is particularly important when the types of protection ‘Flameproof enclosures’ (IEC 60079-1) and ‘Intrinsic safety’ (IEC 60079-11) are applied.

NOTE 4 The classification of hazardous areas in zones is defined in IEC 60079-10.

NOTE 5 There may be other non-electrical sources of ignition (for example ultrasonic, optical or ionizing radiation) that are not addressed by this standard; these should also be taken into consideration (see, for example, EN 1127-1).

NOTE 6 This concept provides equipment protection level (EPL) Ga. For further information, see Annex A.

2 Normative references

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

IEC 60079-1, *Electrical apparatus for explosive gas atmospheres – Part 1: Flameproof enclosures "d"*

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

IEC 60079-11, *Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"*

IEC 60079-18, *Electrical apparatus for explosive gas atmospheres – Part 18: Construction, test and marking of type of protection encapsulation "m" electrical apparatus*

IEC 60695-11-10, *Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods*