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## Explosiv atmosfär – Del 6: Utrustning i utförande med olja "o"

*Explosive atmospheres –  
Part 6: Equipment protection by oil immersion "o"*

Som svensk standard gäller europastandarden EN 60079-6:2007. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60079-6:2007.

### Nationellt förord

Europastandarden EN 60079-6:2007

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60079-6, Third edition, 2007 - Explosive atmospheres -  
Part 6: Equipment protection by oil immersion "o"**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden skall användas tillsammans med SS-EN 60079-0, utgåva 2, 2006.

Tidigare fastställd svensk standard SS-EN 50015, utgåva 3, 1998, gäller ej fr o m 2010-05-01.

### *Standarder underlättar utvecklingen och höjer elsäkerheten*

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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### *SEK är Sveriges röst i standardiseringsarbetet inom elområdet*

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Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

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Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

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

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English version

**Explosive atmospheres -  
Part 6: Equipment protection by oil immersion "o"  
(IEC 60079-6:2007)**

Atmosphères explosives -  
Partie 6: Protection du matériel  
par immersion dans l'huile "o"  
(CEI 60079-6:2007)

Explosionsfähige Atmosphäre -  
Teil 6: Geräteschutz  
durch Ölkapselung "o"  
(IEC 60079-6:2007)

This European Standard was approved by CENELEC on 2007-05-01. 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 31/673/FDIS, future edition 3 of IEC 60079-6, prepared by IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-6 on 2007-05-01.

This European Standard supersedes EN 50015:1998.

This standard is to be used 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) 2008-02-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2010-05-01

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 ATEX (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 60079-6:2007 was approved by CENELEC as a European Standard without any modification.

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## 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 60079-0	- <sup>1)</sup>	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements	EN 60079-0	2006 <sup>2)</sup>
IEC 60079-7	- <sup>1)</sup>	Explosive atmospheres - Part 7: Equipment protection by Increased safety "e"	EN 60079-7	2007 <sup>2)</sup>
IEC 60079-11	- <sup>1)</sup>	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	EN 60079-11	2007 <sup>2)</sup>
IEC 60079-15	- <sup>1)</sup>	Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection "n" electrical apparatus	EN 60079-15	2005 <sup>2)</sup>
IEC 60156	- <sup>1)</sup>	Insulating liquids - Determination of the breakdown voltage at power frequency - Test method	EN 60156	1995 <sup>2)</sup>
IEC 60247	- <sup>1)</sup>	Insulating liquids - Measurement of relative permittivity, dielectric dissipation factor (tan d) and d.c. resistivity	EN 60247	2004 <sup>2)</sup>
IEC 60296	- <sup>1)</sup>	Fluids for electrotechnical applications - Unused mineral insulating oils for transformers and switchgear	EN 60296 + corr. September	2004 <sup>2)</sup> 2004
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
A1	1999		A1	2000
IEC 60588-2	- <sup>1)</sup>	Askarels for transformers and capacitors - Part 2: Test methods	-	-
IEC 60836	- <sup>1)</sup>	Specifications for unused silicone insulating liquids for electrotechnical purposes	EN 60836	2005 <sup>2)</sup>
ISO 2719	- <sup>1)</sup>	Determination of flash point - Pensky-Martens closed cup method	EN ISO 2719	2002 <sup>2)</sup>
ISO 3016	- <sup>1)</sup>	Petroleum products - Determination of pour point	-	-

<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 3104	- <sup>1)</sup>	Petroleum products - Transparent and opaque liquids - Determination of kinematic viscosity and calculation of dynamic viscosity	EN ISO 3104	1996 <sup>2)</sup>

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# EXPLOSIVE ATMOSPHERES –

## Part 6: Equipment protection by oil immersion "o"

### 1 Scope

This part of IEC 60079 specifies the requirements for the construction and testing of oil-immersed electrical equipment, oil-immersed parts of electrical equipment and Ex components in the type of protection oil immersion "o", intended for use in explosive gas atmospheres.

NOTE Type of protection oil immersion "o" provides equipment protection level (EPL) Gb. For further information, see Annex A.

This standard supplements and modifies the general requirements of IEC 60079-0. Where a requirement of this standard conflicts with a requirement of IEC 60079-0, the requirement of this standard takes precedence.

This standard is applicable to electrical equipment, parts of electrical equipment, and Ex components which, in the absence of oil immersion, are not ignition capable in normal operation as determined by IEC 60079-15 or IEC 60079-11.

### 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, *Electrical apparatus for explosive gas atmospheres – Part 0: General requirements*

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

IEC 60079-11, *Electrical apparatus for explosive gas atmospheres – Part 11: Intrinsic safety "i"*

IEC 60079-15, *Electrical apparatus for explosive gas atmospheres – Part 15: Construction, test and marking of type of protection "n" electrical apparatus*

IEC 60156, *Insulating liquids – Determination of the breakdown voltage at power frequency – Test method*

IEC 60247, *Insulating liquids – Measurement of relative permittivity, dielectric dissipation factor ( $\tan \delta$ ) and d.c. resistivity*

IEC 60296, *Fluids for electrotechnical applications – Unused mineral insulating oils for transformers and switchgear*



IEC 60529, *Degrees of protection provided by enclosures (IP Code)*  
Amendment 1 (1999)

IEC 60588-2, *Askarels for transformers and capacitors – Part 2: Test methods*

IEC 60836: *Specifications for unused silicone insulating liquids for electrotechnical purposes*

ISO 2719, *Determination of flash point – Pensky-Martens closed cup method*

ISO 3016, *Petroleum oils – Determination of pour point*

ISO 3104, *Petroleum products – Transparent and opaque liquids – Determination of kinematic viscosity and calculation of dynamic viscosity*