SVENSK STANDARD SS-EN 61039

Fastställd	Utgåva	Sida	Ansvarig kommitté
2009-06-29	1	1 (1+12)	SEK TK 10

Isoleroljor – Klassindelning

Classification of insulating liquids

Som svensk standard gäller europastandarden EN 61039:2008. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61039:2008.

Nationellt förord

Europastandarden EN 61039:2008

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 61039, Second edition, 2008 - Classification of insulating liquids**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-IEC 1039, utgåva 1, 1993, gäller ej fr o m 2011-10-01.

ICS 29.040.10

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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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.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

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).

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.

Var med och påverka!

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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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61039

October 2008

ICS 29.040.10

Supersedes HD 618 S1:1992

English version

Classification of insulating liquids
(IEC 61039:2008)

Classification des liquides isolants
(CEI 61039:2008)

Klassifizierung der Isolierflüssigkeiten
(IEC 61039:2008)

This European Standard was approved by CENELEC on 2008-10-01. 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, 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 61039:2008 E

SEK Svensk Elstandard

Foreword

The text of document 10/741/FDIS, future edition 2 of IEC 61039, prepared by IEC TC 10, Fluids for electrotechnical applications, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61039 on 2008-10-01.

This European Standard supersedes HD 618 S1:1992.

The main change with regard to HD 618 S1:1992 concerns the updating of the classification of insulating liquids, taking into account the largest number possible of substances that have, or may have, possible application in electrical components.

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)	2009-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2011-10-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61039:2008 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 61100	NOTE	Harmonized as EN 61100:1992 (not modified).
ISO 2719	NOTE	Harmonized as EN ISO 2719:2002 (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/TS 60076-14	2004	Power transformers - Part 14: Design and application of liquid-immersed power transformers using high-temperature insulation materials	-	-
IEC 60296	2003	Fluids for electrotechnical applications - Unused mineral insulating oils for transformers and switchgear	EN 60296 + corr. September	2004 2004
IEC 60465	1988	Specification for unused insulating mineral oils for cables with oil ducts	EN 60465	1990
IEC 60836	2005	Specifications for unused silicone insulating liquids for electrotechnical purposes	EN 60836	2005
IEC 60867	1993	Insulating liquids - Specifications for unused liquids based on synthetic aromatic hydrocarbons	EN 60867	1994
IEC 60963	1988	Specification for unused polybutenes	HD 582 S1	1991
IEC 61099	1992	Specification for unused synthetic organic esters for electrical purposes	EN 61099	1992
ISO 1928	1995	Solid mineral fuels - Determination of gross calorific value by the bomb calorimetric method, and calculation of net calorific value	-	-
ISO 2592	2000	Determination of flash and fire points - Cleveland open cup method	EN ISO 2592	2001
ISO 6743-99	2002	Lubricants, industrial oils and related products (class L) - Classification - Part 99: General	-	-
ISO 8681	1986	Petroleum products and lubricants - Method of classification - Definition of classes	-	-
OECD 301	1992	OECD guidelines for the testing of chemicals - Ready Biodegradability	-	-
ASTM D240-02	-[1)]	Standard test method for heat of combustion of liquid hydrocarbon fuels by bomb calorimeter	-	-

[1)] Undated reference.

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INTRODUCTION

Health and safety

This International Standard does not purport to address all the safety problems associated with its use. It is the responsibility of the user of the standard to establish appropriate health and safety practices and determine the applicability of regulatory limitations prior to use.

The insulating liquids which are the subject of this standard should be handled with due regard to personal hygiene. Direct contact with eyes may cause slight irritation. In the case of eye contact, irrigation with copious quantities of clean running water should be carried out and medical advice sought.

Some of the tests specified in this standard involve the use of processes that could lead to a hazardous situation. Attention is drawn to the relevant standard for guidance.

Environment

This standard involves insulating liquids, chemicals and used sample containers. The disposal of these items should be carried out in accordance with current national legislation with regard to the impact on the environment. Every precaution should be taken to prevent the release into the environment of the insulating liquids.

CLASSIFICATION OF INSULATING LIQUIDS

1 Scope

This International Standard establishes the detailed classification of the N family (insulating liquids) that belongs to class L (lubricants, industrial oils and related products) in accordance with ISO 8681 and ISO 6743-99, affecting product categories that include products derived from petroleum processing, synthetic chemical products and synthetic and natural esters.

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/TS 60076-14:2004, *Power transformers – Part 14: Design and application of liquid-immersed power transformers using high-temperature insulation materials*

IEC 60296:2003, *Fluids for electrotechnical applications – Unused mineral insulating oils for transformers and switchgear*

IEC 60465:1988, *Specification for unused insulating mineral oils for cables with oil ducts*

IEC 60836:2005, *Specifications for unused silicone insulating liquids for electrotechnical purposes*

IEC 60867:1993, *Insulating liquids – Specifications for unused liquids based on synthetic aromatic hydrocarbons*

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IEC 61099:1992, *Specifications for unused synthetic organic esters for electrical purposes*

ISO 1928:1995, *Solid mineral fuels – Determination of gross calorific value by the bomb calorimetric method, and calculation of net calorific value*

ISO 2592:2000, *Determination of flash and fire points – Cleveland open cup method*

ISO 6743-99:2002, *Lubricants, industrial oils and related products (class L) – Classification – Part 99: General*

ISO 8681:1986, *Petroleum products and lubricants – Method of classification - Definition of classes*

OECD 301:1992, *OECD guideline for testing of chemicals – Ready biodegradability*

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