

Svenska Elektriska Kommissionen, SEK

Fastställt	Utgåva	Sida	Ingår i
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Industriella elvärmeanläggningar – Säkerhet – Del 10: Särskilda fordringar på installationer med värmefolier och värmekablar

*Safety in electroheat installations –
Part 10: Particular requirements for electrical resistance trace heating systems
for industrial and commercial applications*

Som svensk standard gäller europastandarden EN 60519-10:2005. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60519-10:2005.

Nationellt förord

Europastandarden EN 60519-10:2005

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60519-10, First edition, 2005 - Safety in electroheat installations - Part 10: Particular requirements for electrical resistance trace heating systems for industrial and commercial applications**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden skall användas tillsammans med SS-EN 60519-1, utgåva 2, 2003.

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

Svenska Elektriska Kommissionen, SEK, 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.

SEK

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Safety in electroheat installations
Part 10: Particular requirements for electrical resistance trace heating
systems for industrial and commercial applications
(IEC 60519-10:2005)

Sécurité dans les installations
électrothermiques
Partie 10: Règles particulières pour
les systèmes de chauffage par traçage
à résistance électrique pour applications
industrielles et commerciales
(CEI 60519-10:2005)

Sicherheit in Elektrowärmeanlagen
Teil 10: Besondere Anforderungen an
elektrische Trace-Widerstandsheizungen
für industrielle und gewerbliche Zwecke
(IEC 60519-10:2005)

This European Standard was approved by CENELEC on 2005-08-01. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and 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 27/468/FDIS, future edition 1 of IEC 60519-10, prepared by IEC TC 27, Industrial electroheating equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60519-10 on 2005-08-01.

This part of EN 60519 shall be used in conjunction with EN 60519-1:2003.

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) | 2006-05-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2008-08-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60519-10:2005 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 Where 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 60050-841	- ¹⁾	International electrotechnical vocabulary Part 841: Industrial electroheat	-	-
IEC 60364-1	- ¹⁾	Electrical installations of buildings Part 1: Fundamental principles, assessment of general characteristics, definitions	-	-
IEC 60364-5-51	- ¹⁾	Part 5-51: Selection and erection of electrical equipment - Common rules	-	-
IEC 60446	- ¹⁾	Basic and safety principles for man- machine interface, marking and identification - Identification of conductors by colours or numerals	EN 60446	1999 ²⁾
IEC 60519-1	2003	Safety in electroheat installations Part 1: General requirements	EN 60519-1	2003

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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SAFETY IN ELECTROHEAT INSTALLATIONS –

Part 10: Particular requirements for electrical resistance trace heating systems for industrial and commercial applications

1 Scope and object

This part of IEC 60519 deals with safety requirements for electrical resistance trace heating systems in industrial and commercial applications.

This standard pertains to trace heating systems that may comprise either factory fabricated or field (work-site) assembled units, and which may be series heater cables, parallel heater cables, heater pads or heater panels that have been assembled and/or terminated in accordance with manufacturer's instructions for connection to voltage supplies up to and including 450 V / 750 V.

NOTE This is less than the voltage range of IEC 60519-1. Higher voltages are under consideration.

Typical applications include but are not limited to

- the freeze protection of pipes, tanks and vessels, including fire water systems;
- maintaining required temperatures of equipment, including pipes, tanks and vessels;
- earth thermal storage;
- hot water temperature maintenance;
- snow melting of surfaces;
- de-icing of roofs and gutters.

These applications do not include or provide for any applications in potentially explosive atmospheres.

This standard does not cover induction, impedance or skin effect heating.

NOTE Specific requirements and test criteria for electrical resistance trace heating systems and design, installation, and maintenance requirements for these systems will be detailed in separate documents that are under consideration (see Introduction).

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 60050-841, *International Electrotechnical Vocabulary (IEV) – Part 841: Industrial electro-heat*

IEC 60364-1, *Electrical installations of buildings – Part 1: Fundamental principles, assessment of general characteristics, definitions*