

Svenska Elektriska Kommissionen, SEK

Fastställt	Utgåva	Sida	Ingår i
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Industriella elvärmeanläggningar – Säkerhet – Del 3: Tilläggsfordringar för installationer med induktionsvärmning och resistiv värmning samt för induktionssmältanläggningar

Safety in electroheat installations –

*Part 3: Particular requirements for induction and conduction heating
and induction melting installations*

Som svensk standard gäller europastandarden EN 60519-3:2005. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60519-3:2005.

Nationellt förord

Europastandaren EN 60519-3:2005

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60519-3, Third edition, 2005 - Safety in electroheat installations - Part 3: Particular requirements for induction and conduction heating and induction melting installations**

utarbetad inom International Electrotechnical Commission, IEC.

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

Tidigare fastställd svensk standard SS-EN 60519-3, utgåva 1, 1996, gäller ej fr o m 2008-04-01.

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.

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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English version

Safety in electroheat installations
Part 3: Particular requirements for induction and conduction heating
and induction melting installations
(IEC 60519-3:2005)

Sécurité dans les installations
électrothermiques
Partie 3: Règles particulières pour
les installations de chauffage
par induction et par conduction
et pour les installations de fusion
par induction
(CEI 60519-3:2005)

Sicherheit in Elektrowärmeanlagen
Teil 3: Besondere Anforderungen
an induktive und konduktive
Erwärmungsanlagen und an
Induktionsschmelzanlagen
(IEC 60519-3:2005)

This European Standard was approved by CENELEC on 2005-04-12. 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 27/446/FDIS, future edition 3 of IEC 60519-3, prepared by IEC TC 27, Industrial electroheating equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60519-3 on 2005-04-12.

This European Standard supersedes EN 60519-3:1995.

Significant technical changes with respect to EN 60519-3:1995 are as follows:

- the latest edition of EN 60519-1 (2003), in particular the extension of the scope to cover also voltage band 3 equipment with rated voltages not exceeding 3 600 V AC or 5 000 V DC, has been taken into account;
- definitions have been brought into line with the second edition of IEC 60050-841.

This part of EN 60519 is to be used in conjunction EN 60519-1:2003. It is intended to modify, replace or make additions to EN 60519-1 for particular requirements for induction and conduction heating and induction melting installations.

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) | 2006-01-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2008-04-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60519-3:2005 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	2004	International electrotechnical vocabulary Part 841: Industrial electroheat	-	-
IEC 60110-1	1998	Power capacitors for induction heating installations Part 1: General	EN 60110-1	1998
IEC 60143-1	2004	Series capacitors for power systems Part 1: General	EN 60143-1	2004
IEC 60364-4-41	2001	Electrical installations of buildings Part 4-41: Protection for safety - Protection against electric shock	-	-
IEC 60519-1	2003	Safety in electroheat installations Part 1: General requirements	EN 60519-1	2003

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SAFETY IN ELECTROHEAT INSTALLATIONS –

Part 3: Particular requirements for induction and conduction heating and induction melting installations

1 Scope

This part of IEC 60519 is applicable to

- installations for induction and conduction heating of solids, at low, mains, medium and high frequencies (for conduction heating, use of direct current is also included);
- installations for induction melting, holding and superheating liquid metal at low, mains, medium and high frequencies;
- those parts of the conveying or handling equipment of the electroheat installation which are within the influence of the heating section.

Examples of application are:

- installations for induction and conduction heating of slabs, billets, rods, strip, wire, tubes, rivets, etc. for subsequent hot forming and heat treatment;
- installations with induction crucible furnaces or induction channel furnaces.

This standard consists of requirements common to both induction and conduction heating installations and induction melting installations (Clauses 1 to 14) and specific requirements for induction and conduction heating installations (Annex A) and specific requirements for induction melting installations (Annex B).

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 60050-841:2004, *International Electrotechnical Vocabulary – Part 841: Industrial electroheat*

IEC 60110-1:1998, *Power capacitors for induction heating installations – Part 1: General*

IEC 60143-1:2004, *Series capacitors for power systems – Part 1: General*

IEC 60364-4-41:2001, *Electrical installations of buildings – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60519-1:2003, *Safety in electroheat installations – Part 1: General requirements*