SLOVENSKI STANDARD

SIST EN 60519-4:2007

januar 2007

Varnost pri električnih grelnih inštalacijah - 4. del: Posebne zahteve za inštalacije obločnih peči (IEC 60519-4:2006)

(istoveten EN 60519-4:2006)

Safety in electroheat installations - Part 4: Particular requirements for arc furnace installations (IEC 60519-4:2006)

ICS 25.180.10

Referenčna številka
SIST EN 60519-4:2007(en)

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60519-4

September 2006

ICS 25.180.10

Supersedes EN 60519-4:1997 + A1:2000

English version

Safety in electroheat installations
Part 4: Particular requirements for arc furnace installations
(IEC 60519-4:2006)

Sécurité dans les installations électrothermiques
Partie 4: Exigences particulières pour les installations de fours à arc
(CEI 60519-4:2006)

Sicherheit in Elektrowärmeanlagen
Teil 4: Besondere Bestimmungen für Lichtbogenofenanlagen
(IEC 60519-4:2006)

This European Standard was approved by CENELEC on 2006-09-01. 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, 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 60519-4:2006 E

Foreword

The text of document 27/528/FDIS, future edition 3 of IEC 60519-4, prepared by IEC TC 27, Industrial electroheating equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60519-4 on 2006-09-01.

This European Standard supersedes EN 60519-4:1997 + A1:2000.

It includes the following significant changes with respect to EN 60519-4:1997:

– the structure has been adjusted to that of EN 60519-1:2003;

– the classification takes into account the special definition of "band 2" for arc furnaces and the possibility of band 3 equipment;

– additional provisions concerning the impact of electromagnetic effects have been introduced (in 6.4).

This part of EN 60519 shall be read in conjunction with EN 60519-1:2003. It is intended to modify, replace or make additions to EN 60519-1 for particular requirements concerning arc furnace 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)	2007-06-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2009-09-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60519-4:2006 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.

Publication	Year	Title	EN/HD	Year
IEC 60050-841	2004	International electrotechnical vocabulary Part 841: Industrial electroheat	-	-
IEC 60073	2002	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators	EN 60073	2002
IEC 60204-1 (mod)	2005	Safety of machinery - Electrical equipment of machines Part 1: General requirements	EN 60204-1	2006
IEC 60364-4-41	2005	Low-voltage electrical installations Part 4-41: Protection for safety - Protection against electric shock	-	-
IEC 60364-4-43	2001	Electrical installations of buildings Part 4-43: Protection for safety - Protection against overcurrent	-	-
IEC/TS 60479-1	2005	Effects of current on human beings and livestock Part 1: General aspects	-	-
IEC 60519-1	2003	Safety in electroheat installations Part 1: General requirements	EN 60519-1	2003
CISPR 11 (mod)	-[1)]	Industrial scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement	-	-

[1)] Undated reference.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

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Troisième édition
Third edition
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Sécurité dans les installations électrothermiques –

Partie 4: Exigences particulières pour les installations de fours à arc

Safety in electroheat installations –

Part 4: Particular requirements for arc furnace installations

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Международная Электротехническая Комиссия

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SAFETY IN ELECTROHEAT INSTALLATIONS –

Part 4: Particular requirements for arc furnace installations

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60519-4 has been prepared by IEC technical committee 27: Industrial electroheating equipment.

This third edition cancels and replaces the second edition published in 1995 as well as its amendment 1 (2000) and constitutes a technical revision.

This edition includes the following significant changes with respect to the previous edition.

– The structure has been adjusted to that of IEC 60519-1:2003.
– The classification takes into account the special definition of "band 2" for arc furnaces and the possibility of band 3 equipment.
– Additional provisions concerning the impact of electromagnetic effects have been introduced (in 6.4).

This part of IEC 60519 shall be read in conjunction with IEC 60519-1:2003. It is intended to modify, replace or make additions to IEC 60519-1 for particular requirements concerning arc furnace installations.

The text of this standard is based on the following documents:

FDIS	Report on voting
27/528/FDIS	27/544/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The list of all parts of the IEC 60519 series, under the general title *Safety in electroheat installations*, can be found on the IEC website.

NOTE If necessary, additional parts covering particular industrial electroheat equipment may be prepared.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

SAFETY IN ELECTROHEAT INSTALLATIONS –

Part 4: Particular requirements for arc furnace installations

1 Scope

This part of IEC 60519 is applicable to electroheat installations such as:

– furnaces for direct arc heating such as direct arc furnaces, submerged arc furnaces, ladle arc heating furnaces;

– furnaces for indirect arc heating.

NOTE When the electrodes of an arc furnace deliver a direct current, the arc furnace is called "d.c. arc furnace" (IEV 841-26-06).

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 (IEV) – Part 841: Industrial electroheat*

IEC 60073:2002, *Basic and safety principles for man-machine interface, marking and identification – Coding principles for indicators and actuators*

IEC 60204-1:2005, *Safety of machinery – Electrical equipment of machines – Part 1: General requirements*

IEC 60364-4-41:2005, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60364-4-43:2001, *Electrical installations of buildings – Part 4-43: Protection for safety – Protection against overcurrent*

IEC 60479-1:2005, *Effects of current on human beings and livestock – Part 1: General aspects*

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

CISPR 11, *Industrial, scientific and medical (ISM) radio-frequency equipment – Electromagnetic disturbance characteristics – Limits and methods of measurement*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60519-1 and IEC 60050-841 apply.