SLOVENSKI STANDARD
SIST EN 60034-9:2006

01-januar-2006

Nadomeġļ a:
SIST EN 60034-9:1999

Elektriļ ni rotacijski stroji - 9. del: Omejitve hrupa (IEC 60034-9:2003, spremenjen)

Rotating electrical machines - Part 9: Noise limits (IEC 60034-9:2003, modified)

Drehende elektrische Maschinen - Teil 9: Geräuschgrenzwerte (IEC 60034-9:2003, modifiziert)

Machines électriques tournantes - Partie 9: Limites de bruit (CEI 60034-9:2003, modifiée)

Ta slovenski standard je istoveten z: **EN 60034-9:2005**

ICS:

17.140.20	Emisija hrupa naprav in opreme	Noise emitted by machines and equipment
29.160.01	Rotacijski stroji na splošno	Rotating machinery in general

SIST EN 60034-9:2006 **en**

EUROPEAN STANDARD **EN 60034-9**

NORME EUROPÉENNE

EUROPÄISCHE NORM May 2005

ICS 29.160 Supersedes EN 60034-9:1997

English version

Rotating electrical machines
Part 9: Noise limits
(IEC 60034-9:2003, modified)

Machines électriques tournantes
Partie 9: Limites de bruit
(CEI 60034-9:2003, modifiée)

Drehende elektrische Maschinen
Teil 9: Geräuschgrenzwerte
(IEC 60034-9:2003, modifiziert)

This European Standard was approved by CENELEC on 2005-03-01. 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

Ref. No. EN 60034-9:2005 E

Foreword

The text of the International Standard IEC 60034-9:2003, prepared by IEC TC 2, Rotating machinery, together with the common modifications prepared by the Technical Committee CENELEC TC 2, Rotating machinery, was submitted to the formal vote and was approved by CENELEC as EN 60034-9 on 2005-03-01.

This European Standard supersedes EN 60034-9:1997.

It includes the following significant technical changes:

– it reduces the no-load noise limits for single-speed, cage-induction motors according to Table 2;

– it provides informative guidance on

  – the measurement surface to be used during some tests,

  – a method for the determination of an average sound pressure level,

  – an indication of "uncertainty" based upon the category of test procedure.

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) 2006-03-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2008-03-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60034-9:2003 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

4 Methods of measurement

4.1 **Replace** the note by:

NOTE It is recommended that the parallelepiped method be used for all electrical machines.

5 Test conditions

5.2 **Replace** item b) by:

b) Machines shall be tested in their operating position and in case of designs for several distinct speeds or for a speed range at that speed which generates the greatest noise.

Delete item f) and **rename** item g) to become item f).

7 Determination of sound pressure level

Replace the first paragraph by:

Sound pressure levels are not required as part of this standard. If requested, an A-weighted sound pressure level may be determined from the test readings (see 4.1). Only if tested sound pressure values are not available an A-weighted sound pressure level may be determined from the sound power level as follows:

Replace the last paragraph by:

S is the area in m² of a parallelepiped surface enveloping the machine at a distance from the machine of 1 m according to ISO 3744.

Delete the two columns headed "Shaft height" and "Surface area, S".

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.

Publication	Year	Title	EN/HD	Year
IEC 60034-1	- [1)]	Rotating electrical machines Part 1: Rating and performance	EN 60034-1	2004 [2)]
IEC 60034-5	- [1)]	Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) - Classification	EN 60034-5	2004 [2)]
IEC 60034-6	- [1)]	Part 6: Methods of cooling (IC Code)	EN 60034-6	1993 [2)]
IEC/TS 60034-17	- [1)]	Part 17: Cage induction motors when fed from converters - Application guide	CLC/TS 60034-17	2004 [2)]
ISO 3741	- [1)]	Acoustics - Determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms	EN ISO 3741	1999 [2)]
ISO 3743-1	- [1)]	Acoustics - Determination of sound power levels of noise sources using sound pressure - Engineering methods for small, movable sources in reverberant fields Part 1: Comparison method for hard-walled test rooms	EN ISO 3743-1	1995 [2)]
ISO 3743-2	- [1)]	Part 2: Methods for special reverberation test rooms	EN ISO 3743-2	1996 [2)]
ISO 3744	- [1)]	Acoustics - Determination of sound power levels of noise sources using sound pressure - Engineering method in an essentially free field over a reflecting plane	EN ISO 3744	1995 [2)]

1) Undated reference.

2) Valid edition at date of issue.

Publication	Year	Title	EN/HD	Year
ISO 3745	- [1]	Acoustics - Determination of sound power levels of noise sources - Precision methods for anechoic and semi-anechoic rooms	EN ISO 3745	2003 [2]
ISO 3746	- [1]	Acoustics - Determination of sound power levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane	EN ISO 3746	1995 [2]
ISO 3747	- [1]	Acoustics - Determination of sound power levels of noise sources using sound pressure - Comparison method in situ	EN ISO 3747	2000 [2]
ISO 4871	- [1]	Acoustics - Declaration and verification of noise emission values of machinery and equipment	EN ISO 4871	1996 [2]
ISO 9614-1	- [1]	Acoustics - Determination of sound power levels of noise sources using sound intensity Part 1: Measurement at discrete points	EN ISO 9614-1	1995 [2]
ISO 9614-2	- [1]	Part 2: Measurement by scanning	EN ISO 9614-2	1996 [2]

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
60034-9

Quatrième édition
Fourth edition
2003-10

Machines électriques tournantes –

Partie 9:
Limites de bruit

Rotating electrical machines –

Part 9:
Noise limits

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ROTATING ELECTRICAL MACHINES –

Part 9: Noise limits

FOREWORD

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International Standard IEC 60034-9 has been prepared by IEC technical committee 2: Rotating machinery.

This fourth edition cancels and replaces the third edition published in 1997. This edition includes the following significant technical changes:

- this edition reduces the no-load noise limits for single-speed, cage-induction motors according to Table 2;
- it also provides informative guidance on
  - the measurement surface to be used during some tests,
  - a method for the determination of an average sound pressure level,
  - an indication of "uncertainty" based upon the category of test procedure.