
Rotacijski električni stroji - 9. del: Meje hrupa

Rotating electrical machines -- Part 9: Noise limits

Drehende elektrische Maschinen -- Teil 9: Geräuschgrenzwerte

Machines électriques tournantes -- Partie 9: Limites du bruit

Ta slovenski standard je istoveten z: EN 60034-9:1993[SIST EN 60034-9:1993](https://standards.iteh.ai/catalog/standards/sist/9c962914-6de0-444a-a250-e4b762efb3f8/sist-en-60034-9-1993)<https://standards.iteh.ai/catalog/standards/sist/9c962914-6de0-444a-a250-e4b762efb3f8/sist-en-60034-9-1993>**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 60034-9:1993**en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60034-9

November 1993

UDC 621.313:534.61:534.835.46

Supersedes HD 53.9 S1:1978

Descriptors: Electrical rotating machinery, machinery noise, noise limit, sound power density, sound power, maximum value

English version

Rotating electrical machines
Part 9: Noise limits
(IEC 34-9:1990 + corrigendum 1991, modified)

Machines électriques tournantes
Neuvième partie: Limites de bruit
(CEI 34-9:1990 + corrigendum 1991,
modifiée)

Umlaufende elektrische Maschinen
Teil 9: Geräuschgrenzwerte
(IEC 34-9:1990 + Corrigendum 1991,
modifiziert)

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This European Standard was approved by CENELEC on 1993-09-22. CENELEC members are bound to comply with the requirements of 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 and 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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

At the request of CENELEC Technical Committee TC 2, Rotating machinery, the text of the International Standard IEC 34-9:1990 including its corrigendum March 1991, together with some common modifications prepared by TC 2, was submitted to the CENELEC formal vote for acceptance as a Harmonization Document.

The draft was approved by CENELEC as HD 53.9 S2 on 1993-07-06 and was immediately submitted to a new vote for acceptance as a European Standard.

The document was approved by CENELEC as EN 60034-9 on 1993-09-22.

This European Standard supersedes HD 53.9 S1:1978.

The following dates were fixed:

- latest date of publication of
an identical national standard (dop) 1994-09-01
- latest date of withdrawal of
conflicting standards (dow) 1994-09-01

For products which have complied with HD 53.9 S1:1978 before 1994-09-01 as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1999-09-01.

Annexes designated "normative" are part of the body of the standard. In this standard, annex ZA is normative.

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Endorsement notice

The text of the International Standard IEC 34-9:1990, including its corrigendum March 1991, was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

Clause 6, before the notes, add a second paragraph as follows:

In the case of 50 Hz, IC01, IC11, IC21, IC411, IC511, IC611, a.c. cage induction motors, with outputs greater than 1,1 kW and not greater than 400 kW, table 2 shall be used instead of table 1.

Add a new table 2 as follows:

TABLE 2

**Maximum A-weighted sound level L_w for cage induction motors 50 Hz
with methods of cooling IC01, IC11, IC21, IC411, IC511, IC611**

Speed n_s tr/min	750	1 000	1 500	3 000
Methods of cooling (simplified Code see IEC 34-6)	IC01, IC11, IC21, IC411, IC511, IC611			
Rated output P_N kW	Maximum permissible sound power level L_{wA} in dB			
$1,1 < P_N \leq 2,2$	72	72	72	81
$2,2 < P_N \leq 5,5$	76	76	78	86
$5,5 < P_N \leq 11$	80	80	82	91
$11 < P_N \leq 22$	84	84	87	94
$22 < P_N \leq 37$	87	87	91	96
$37 < P_N \leq 55$	90	90	94	98
$55 < P_N \leq 110$	92	94	97	100
$110 < P_N \leq 220$	96	98	101	103
$220 < P_N \leq 400$	99	101	105	107

Annex ZA (normative)**Other international publications quoted in this standard
with the references of the relevant European publications**

NOTE: When the international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

IEC				
<u>Publication</u>	<u>Date</u>	<u>Title</u>	<u>EN/HD</u>	<u>Date</u>
34-1 (mod)	1983	Rotating electrical machines Part 1: Rating and performance	HD 53.1 S2 A3	1985 1992
34-5	1990	Part 5: Classification of degrees of protection provided by enclosures of rotating electrical machines (IP code)	-	-
34-6	1969	Part 6: Methods of cooling rotating machinery	HD 53.6 S1 ¹⁾	1977
<u>Other publications</u>				
ISO 1680-1:1986		Acoustics — Test code for the measurement of airborne noise emitted by rotating electrical machinery — Part 1: Engineering method for free-field conditions over a reflecting plane		
ISO 1680-2:1986		Acoustics — Test code for the measurement of airborne noise emitted by rotating electrical machinery — Part 2: Survey method		
ISO 3740:1980		Acoustics — Determination of sound power levels of noise sources — Guidelines for the use of basic standards and for the preparation of noise test codes		
ISO 3741:1988		Acoustics — Determination of sound power levels of noise sources — Precision methods for broad-band sources in reverberation rooms		
ISO 3742:1988		Acoustics — Determination of sound power levels of noise sources — Precision methods for discrete-frequency and narrow-band sources in reverberation rooms		
ISO 3743:1988		Acoustics — Determination of sound power levels of noise sources — Engineering methods for special reverberation test rooms		
ISO 3745:1977		Acoustics — Determination of sound power levels of noise sources — Precision methods for anechoic and semi-anechoic rooms		

1) HD 53.6 S1 is superseded by EN 60034-6:1993 which is based on IEC 34-6:1991.

NORME
INTERNATIONALE
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STANDARD

CEI
IEC
34-9

Deuxième édition
Second edition
1990-06

Machines électriques tournantes
Neuvième partie:
Limites de bruit

iTeh STANDARD PREVIEW
Rotating electrical machines
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Part 9:
Noise limits

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STANDARD PREVIEW
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ROTATING ELECTRICAL MACHINES

Part 9: Noise limits

FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

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This International Standard has been prepared by IEC Technical Committee No. 2: Rotating machinery. [SIST EN 60034-9:1993](https://standards.iteh.ai/catalog/standards/sist/9c962914-6de0-444a-a250-fb71c03f3471-60034-9-1993)

This second edition of IEC 34-9 replaces the first edition published in 1972.

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

Six Months' Rule	Report on Voting
2(C0)536	2(C0)552

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

This standard forms Part 9 of a series of publications dealing with rotating electrical machinery, the other parts being:

Part 1: Rating and performance, issued as IEC 34-1.

Part 2: Methods for determining losses and efficiency of rotating electrical machinery from tests (excluding machines for traction vehicles), issued as IEC 34-2.