

SLOVENSKI STANDARD

SIST EN 60068-2-65:2013

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Nadomešča:

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Okoljsko preskušanje - 2-65. del: Preskusi - Preskus Fg: Vibracije - Metode, povzročene z zvokom

Environmental testing - Part 2-65: Tests - Test Fg: Vibration - Acoustically induced method

Umgebungseinflüsse - Teil 2-65: Prüfverfahren - Prüfung Fg: Schwingen - akustisch angeregt

Essais d'environnement - Partie 2-65: Essais - Essai Fg: Vibrations - Méthode induite acoustiquement

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Ta slovenski standard je istoveten z: EN 60068-2-65:2013

ICS:

19.040

Preskušanje v zvezi z
okoljem

Environmental testing

SIST EN 60068-2-65:2013

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60068-2-65

May 2013

ICS 19.040; 29.020

Supersedes EN 60068-2-65:1994

English version

**Environmental testing -
Part 2-65: Tests -
Test Fg: Vibration -
Acoustically induced method
(IEC 60068-2-65:2013)**

Essais d'environnement -
Partie 2-65: Essais -
Essai Fg: Vibrations -
Méthode induite acoustiquement
(CEI 60068-2-65:2013)

Umgebungseinflüsse -
Teil 2-65: Prüfverfahren -
Prüfung Fg: Schwingen -
akustisch angeregt
(IEC 60068-2-65:2013)

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SIST EN 60068-2-65:2013

This European Standard was approved by CENELEC on 2013-03-13. 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.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 104/591/FDIS, future edition 2 of IEC 60068-2-65, prepared by IEC TC 104 "Environmental conditions, classification and methods of test" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60068-2-65:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-12-13
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-03-13

This document supersedes EN 60068-2-65:1994.

EN 60068-2-65:2013 includes the following significant technical changes with respect to EN 60068-2-65:1994:

– minor technical and editorial changes were made throughout the document as originally requested by the DE National Committee;

– following comments at the CD stage, particularly from the UK National Committee, significant technical and editorial additions were made to the standard for acoustic testing employing the progressive wave tube technique.

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The text of the International Standard IEC 60068-2-65:2013 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-1	NOTE	Harmonized as EN 60068-1.
ISO 266	NOTE	Harmonized as EN ISO 266.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61672-1	-	Electroacoustics - Sound level meters - Part 1: Specifications	EN 61672-1	-
ISO/IEC 17025	2005	General requirements for the competence of testing and calibration laboratories	EN ISO/IEC 17025	2005

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IEC 60068-2-65

Edition 2.0 2013-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Environmental testing –
Part 2-65: Tests – Test Fg: Vibration – Acoustically induced method

Essais d'environnement –
Partie 2-65: Essais – Essai Fg: Vibrations – Méthode induite acoustiquement

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL TESTING –**Part 2-65: Tests –
Test Fg: Vibration –
Acoustically induced method****FOREWORD**

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International Standard IEC 60068-2-65 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test.

This second edition cancels and replaces the second edition, published in 1993, and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- minor technical and editorial changes were made throughout the document as originally requested by the DE National Committee;
- following comments at the CD stage, particularly from the UK National Committee, significant technical and editorial additions were made to the standard for acoustic testing employing the progressive wave tube technique.

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

FDIS	Report on voting
104/591/FDIS	104/597/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.

A list of all the parts in the IEC 60068 series, published under the general title *Environmental testing*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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
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INTRODUCTION

Acoustic noise may produce significant vibration in components and equipment. In the acoustic noise field, sound pressure fluctuations impinge directly on the specimen and the response may be different to that produced by mechanical excitation.

Items particularly sensitive to acoustic noise include relatively lightweight items whose dimensions are comparable to an acoustic wavelength in the frequency range of interest and whose mass per unit area is low, such as dish antennas and solar panels, electronic devices, printed circuit boards, optical elements, etc.

Acoustic testing is applicable to components, equipment, functional units and other products, hereinafter referred to as “specimens”, which are liable to be exposed to and/or are required to function in conditions of high sound pressure levels. It should be noted that, under service conditions, the specimen may be subjected to simultaneous mechanical and acoustical excitation.

High sound pressure levels may be generated by jet engines and other aircraft propulsion systems, rocket motors, high-powered gas circulators, turbulent gas flow around aircraft or launchers, etc. This part of IEC 60068 deals with acoustic testing in compressible gases and can also be used to simulate the excitation response caused by turbulence resulting from high-velocity separated gas flows.

The intent of the test procedure contained in this standard is to produce a high intensity acoustic noise field by either reverberant methods (known as reverberant chamber testing) or by progressive wave methods (known as progressive wave tube testing).

Testing for the effects of vibration caused by acoustic noise demands a certain degree of engineering judgement and this should be recognized both by the manufacturer/supplier and the purchaser of the specimen. Based on the guidance provided in this standard, the writer of the relevant specification is expected to select the most appropriate method of test and values of severity, taking account of the nature of the specimen and its intended use.

Since the acoustic levels occurring during testing are high enough to be damaging to human hearing, appropriate protective measures need to be taken to reduce the noise exposure of operators performing the test to a level regarded as permissible from the standpoint of hearing conservation.