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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Acoustics — Declared noise emission values of computer and business equipment

Acoustique — Valeurs déclarées d'émission acoustique des matériels informatiques et de bureau

Reference number
ISO 9296 : 1988 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 9296 was prepared by the European Computer Manufacturers Association (as Standard ECMA-109) and was adopted, under a special "fast-track" procedure, by Technical Committee ISO/TC 43, *Acoustics*, in parallel with its approval by the ISO member bodies.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Acoustics — Declared noise emission values of computer and business equipment

0 Introduction

Information on acoustic noise emission of computers and business equipment is needed by users, planners, manufacturers and authorities. This information is required for comparison of the noise emissions from different products and for installation acoustics planning and may be used for relating to workplace noise exposure requirements.

In order for equipment noise emission values to be useful, uniform methods are necessary for the following purposes:

— Measuring noise emission values

ISO 7779 specifies uniform methods for measuring noise emission from computers and business equipment when operating under specified conditions which are typical of actual use.

— Determining the noise emission value to be declared

ISO 4871 and its annex A give guidelines for the preparation of standards for deriving noise emission values for declaration purposes, and ISO 7574 gives statistical methods for such determination.

— Presentation of declared noise emission values

For the presentation of declared noise emission values, it is of prime importance to declare sound power levels, L_{WA}. It is recognized, however, that users still desire information on sound pressure levels, L_{pA}. Therefore, this International Standard specifies that both quantities shall be declared. In order to avoid any misunderstanding between presentation of sound power levels in decibels (reference: 1 pW) and sound pressure levels in decibels (reference: 20 µPa), this International Standard expresses sound power level emission values in bels and sound pressure level emission values in decibels.

Optional methods for determination and presentation of subjective characteristics of noise emission are presented in annex B.

— Verification of declared noise emission values

ISO 7574 gives methods for the verification of a declared noise emission value. In that International Standard the procedure is restricted to verifying declared sound power levels only.

1 Scope and field of application

This International Standard applies to computer and business equipment.

This International Standard specifies

— the method for determining the declared noise emission values;

— acoustical and product information to be given in technical documents supplied to users by the manufacturer;

— the method for verifying the declared noise emission values given by the manufacturers.

The uniform methods in this International Standard use the noise data obtained in accordance with ISO 7779 and the procedures specified in ISO 4871 and ISO 7574.

The basic declared noise emission values are the declared A-weighted sound power level, L_{WAd} (a statistical maximum value corresponding to L_c in ISO 7574), and the declared A-weighted sound pressure level, L_{pAm} (a mean value), at the operator or bystander positions.