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Australian Standard®

Acoustics—Declared noise emission values of computer and business equipment

This Australian Standard was prepared by Committee AV/7, Acoustics—Noise from Office and Household Equipment. It was approved on behalf of the Council of Standards Australia on 28 November 1989 and published on 7 May 1990.

The following interests are represented on Committee AV/7:

Association of Consulting Engineers Australia
Australian Acoustical Society
Australian Consumer Association
Australian and New Zealand Environment Council
Australian Electrical and Electronic Manufacturers Association
CSIRO, Division of Applied Physics

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PREFACE

This Standard was prepared by the Standards Australia Committee on Acoustics—Noise from Office and Household Equipment.

It is identical with and has been reproduced from ISO 9296 (1988), *Acoustics—Declared noise emission values of computers and business equipment*.

For the purpose of this Australian Standard, the ISO text should be modified as follows:

References. The references to other publications should be replaced by references to Australian Standard.

Reference to International Standard		*Australian Standard*	
ISO		AS	
7779	Acoustics—Measurement of airborne noise emitted by computer and business equipment	3755	Acoustics—Measurement of airborne noise emitted by computer and business equipment

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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 declaring 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_p. 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.