AS/NZS 62301:2005

Australian/New Zealand Standard™

Household electrical appliances—Measurement of standby power (IEC 62301, Ed. 1.0 (2005) MOD)

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-015, Quality and Performance of Household Electrical Appliances. It was approved on behalf of the Council of Standards Australia on 17 October 2005 and on behalf of the Council of Standards New Zealand on 28 October 2005.
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The following are represented on Committee EL-015:

Australian Consumers' Association
Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Australian Retailers Association
Business New Zealand
Consumer Electronics Suppliers Association
Consumers' Federation of Australia
Department of Energy, Utilities and Sustainability (NSW)
Department of Industrial Relations (Qld)
Electrical Compliance Testing Association
Energy Efficiency and Conservation Authority of New Zealand
Institution of Professional Engineers New Zealand
National Appliance and Equipment Energy Efficiency Committee
National Association of Testing Authorities Australia
Office of the Chief Electrical Inspector
Office of the Technical Regulator (SA)

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-015, Quality and Performance of Household Electrical Appliances, to supersede AS/NZS 62301(Int):2003 on publication.

The objective of this Standard is to provide Australian and New Zealand electrical industries, manufacturers and regulatory bodies with a method of test to determine the power consumption of a range of household appliances and equipment in standby mode (generally where the product is not performing its main function).

This Standard is an adoption with national modifications and has been reproduced from IEC 62301, Ed. 1.0 (2005), *Household electrical appliances—Measurement of standby power*, and has been varied as indicated to take account of Australian/New Zealand conditions.

Variations to IEC 62301, Ed. 1.0 (2005) are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC text, tables and figures which, for the purposes of this Australian/New Zealand Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border.

In November 2002, Australia became the first IEA country to publish a standby power strategy. The 10-year plan identifies a range of actions to address standby power across a large number of products. The Ministerial Council of Energy endorsed the 10 year plan, which has as a foundation, the use of the testing method contained herein developed by the IEC TC 59 Committee. This Standard was published as an Interim Standard in 2003 to give industry and testing laboratories the maximum time to become familiar with the likely international test method for standby and provide an extended opportunity to comment on its application.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) A full point has been substituted for a comma when referring to a decimal marker.

(c) The IEC 62301 Bibliography has been renamed Annex E and Australian and New Zealand publications for measuring energy and performance have been added.

The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

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FOREWORD

Product committees should be primarily responsible for the definition of the relevant low power modes (in addition to standby mode) to which this test procedure is applied. For example, AS/NZS 62087, *Methods of measurement for the power consumption of audio, video and related equipment*, specifies methods and modes for TVs, VCRs and similar equipment.

The methods defined are not intended to be used to measure power consumption of appliances and equipment during normal operation ('on' mode), as these are generally covered by product Standards (see Annex E). This Standard is intended to cover appliances and equipment that fall within the scope of AS/NZS Committee EL-015 ~~TC 59~~. However, it is acknowledged that, if desired, it can be applied to the relevant low power modes of other similar products.

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Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian/New Zealand table, figure or text that is added is part of this standard and is identified by shading.

1 Scope

This Standard specifies methods of measurement of electrical power consumption in standby mode. It is applicable to mains powered electrical household appliances and to the mains powered parts of appliances that use other fuels such as gas or oil.

This Standard does not specify safety requirements. It does not specify minimum performance requirements nor does it set maximum limits on power or energy consumption.

The objective of this Standard is to provide a method test to determine the power consumption of a range of appliances and equipment in standby mode (generally where the product is not performing its main function). This Standard defines ‘standby’ mode as the lowest power consumption when connected to the mains. The test method is also applicable to other low power modes where the mode is steady state or providing a background or secondary function (e.g. monitoring or display). Annex A provides some guidance on the expected modes that would be found for various appliance configurations and designs based on their circuitry and layout, but the standard does not define these modes.

~~The relevant low power modes (in addition to standby mode) to which this test procedure is applied should be defined by performance standards of appropriate appliances. As an example, IEC 62087 specifies a range of modes for TVs, VCRs and similar equipment.~~

NOTE 1 - The measurement of energy consumption and performance of appliances during intended use are generally specified in the relevant product Standards and are not intended to be covered by this Standard.

NOTE 2 - The term ‘appliances’ in this Standard means household appliances or equipment.

NOTE 3 - This Standard may be applicable to other low power modes.

2 Referenced documents

~~The following referenced documents are indispensable for the application of this document. For date references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.~~

The following documents are referred to in this Standard:

~~IEC 60050-131, *International Electrotechnical Vocabulary (IEV) – Part 131: Circuit theory*~~

AS 1852.131, *International Electrotechnical Vocabulary—Electrical and electronic measurements and measuring instruments,* Part 131: *Electric and magnetic circuits*

AS/NZS 62087, *Methods of measurement for the power consumption of audio, video and related equipment*