AS/NZS IEC 62301:2014
IEC 62301, Ed. 2.0 (2011)

AS/NZS IEC 62301:2014

Australian/New Zealand Standard™

Household electrical appliances—Measurement of standby power

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 28 March 2014 and on behalf of the Council of Standards New Zealand on 14 February 2014.
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The following are represented on Committee EL-015:

Australian Industry Group
Business New Zealand
CHOICE
Consumer Electronics Association of New Zealand
Consumer Electronics Suppliers Association
Department of Industry, Australia
Department of Trade and Investment, NSW
Electrical Compliance Testing Association
Energy Efficiency and Conservation Authority of New Zealand
Energy Safe Victoria
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Additional Interests:

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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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

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 low power modes (generally where the product is not performing its main function).

This Standard is identical with, and has been reproduced from, IEC 62301, Ed. 2.0 (2011)), *Household electrical appliances—Measurement of standby power*.

A number of standards and regulations currently in force, as well as some proposed regulations, reference IEC 62301, Ed. 2.0 (2011).

The major differences between this and the previous edition are as follows:

(a) Greater detail in set-up procedures and introduction of stability requirements for all measurement methods to ensure that results are as representative as possible.

(b) Refinement of measurement uncertainty requirements for power measuring instruments, especially for more difficult loads with high crest factor or a low power factor, or both.

(c) Updated guidance on product configuration, instrumentation and calculation of measurement uncertainty.

(d) Inclusion of definitions for low power modes as requested by TC59 and use of these new definitions and more rigorous terminology throughout the standard.

(e) Inclusion of specific test conditions where power consumption is affected by ambient illumination.

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

(i) In the source text, ‘this International Standard’ should read ‘this Australian/New Zealand Standard’.

(ii) A full point substitutes for a comma when referring to a decimal marker.

None of the normative references in the source document have been adopted as Australian or Australian/New Zealand references.

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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INTRODUCTION

The methods defined in this standard are intended to cover **low power modes**. They are not intended to be used to measure power consumption of products during **active mode** (also called “on **mode**“), as these are generally covered by IEC or other product standards (see Bibliography for some examples), although the measuring techniques, measurement uncertainty determination and test equipment specifications could be adapted for such measurements with careful review.

AUSTRALIAN/NEW ZEALAND STANDARD

Household electrical appliances—Measurement of standby power

1 Scope

This International Standard specifies methods of measurement of electrical power consumption in **standby mode(s)** and other **low power modes** (**off mode** and **network mode**), as applicable. It is applicable to electrical products with a rated input voltage or voltage range that lies wholly or partly in the range 100 V a.c. to 250 V a.c. for single phase products and 130 V a.c. to 480 V a.c. for other products.

The objective of this standard is to provide a method of test to determine the power consumption of a range of products in relevant **low power modes** (see 3.4), generally where the product is not in **active mode** (i.e. not performing a primary **function**).

NOTE 1 The measurement of energy consumption and performance of products during intended use are generally specified in the relevant product standards and are not covered by this standard.

NOTE 2 The term “products” in this standard means energy using products such as household appliances or other equipment within the scope of TC 59. However, the measurement methodology could be applied to other products.

NOTE 3 Where this International standard is referenced by performance standards or procedures, these should define and name the relevant **low power modes** (see 3.4) to which this test procedure is applied.

NOTE 4 The inclusion of DC powered products within the scope of this standard is under consideration.

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.

2 Normative references

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

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

IEC 60050-300, *International Electrotechnical Vocabulary (IEV) – Electrical and electronic measurements and measuring instruments – Part 311: General terms relating to measurements – Part 312: General terms relating to electrical measurements – Part 313: Types of electrical measuring instruments – Part 314: Specific terms according to the type of instrument*