

Australian/New Zealand Standard™

**Safety of household and similar
electrical appliances**

**Part 2.75: Particular requirements for
commercial dispensing appliances and
vending machines
(IEC 60335-2-75:1995, MOD)**



AS/NZS 3350.2.75:2001

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-002, Safety of Household and Similar Electrical Appliances and Small Power Transformers. It was approved on behalf of the Council of Standards Australia on 2 October 2001 and on behalf of the Council of Standards New Zealand on 12 October 2001.

This Standard was published on 12 November 2001.

The following are represented on Committee EL-002:

Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Canterbury Manufacturers Association New Zealand
Consumer Electronic Suppliers Association, Australia
Electrical regulatory authorities, Australia
Electrical test laboratories
Electrical consultants
Electricity Supply Association of Australia
Institution of Engineers Australia
Metal Trades Industries Association of Australia
Ministry of Consumer Affairs, New Zealand

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

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.

This Standard was issued in draft form for comment as DR 01926.

Australian/New Zealand Standard™

Safety of household and similar electrical appliances

Part 2.75: Particular requirements for commercial dispensing appliances and vending machines (IEC 60335-2-75:1995, MOD)

Originated as AS/NZS 3350.2.75:1997.
Second edition AS/NZS 3350.2.75:2001.
Reissued incorporating Amendment No. 1 (May 2007).

COPYRIGHT

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

CONTENTS

	Page
PREFACE	5
Clause	
1 Scope	7
2 Definitions	8
3 General requirement.....	10
4 General conditions for the tests	10
5 Void	11
6 Classification.....	11
7 Marking and instructions	11
8 Protection against access to live parts	13
9 Starting of motor-operated appliances.....	13
10 Power input and current.....	14
11 Heating	14
12 Void	15
13 Leakage current and electric strength at operating temperature	15
14 Void	15
15 Moisture resistance	15
16 Leakage current and electric strength	18
17 Overload protection of transformers and associated circuits	19
18 Endurance.....	19
19 Abnormal operation	19
20 Stability and mechanical hazards	21
21 Mechanical strength	21
22 Construction	21
23 Internal wiring.....	24
24 Components	24
25 Supply connection and external flexible cords	25
26 Terminals for external conductors	25
27 Provision for earthing.....	25
28 Screws and connections	26
29 Creepage distances, clearances and distances through insulation	26
30 Resistance to heat, fire and tracking	26
31 Resistance to rusting	26
32 Radiation, toxicity and similar hazards	26

Annexes	29
Annex A (normative) Normative references.....	29
Annex AA (normative) Ageing test for elastomeric parts.....	30
Annex ZZ (informative) Variations to IEC 60335-2-75:1995 for application in Australia and New Zealand.....	32
Figure 101 – Small test finger	27
Figure 102 – Splash apparatus.....	28

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002 - Safety of Household and Similar Electrical Appliances and Small Power Transformers, to supersede AS/NZS 3350.2.75:1997 and its Amendment 1 (1998) and Amendment 2 (2001) on publication.

This Standard incorporates Amendment No. 1 (May 2007). The changes required by the amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected. Where an application date other than immediate is applicable to an amendment the date of application (DOA) is indicated by the marginal bar against the part affected or by a footnote relating to the part affected.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with minimum safety requirements designed to give user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand.

This Standard was revised to incorporate Amendment Nos. 1 and 2 and to effect changes to clause 22.111 and Annex ZZ that were issued in draft form for comment as document DR 01926. It forms the second edition of AS/NZS 3350.2.75 *Safety of household and similar electrical appliances, Part 2.75: Particular requirements for commercial dispensing appliances and vending machines*.

This Standard is an adoption with national modifications and contains the full text of the first edition of IEC 60335-2-75:1995, *Safety of household and similar electrical appliances, Part 2-75: Particular requirements for commercial dispensing appliances and vending machines* including its amendment 1 and has been varied as indicated to take account of Australian and New Zealand conditions. It is to be used in conjunction with the latest edition of AS/NZS 3350.1, *Safety of household and similar electrical appliances, Part 1: General requirements* and its Amendments. It was established on the basis of AS/NZS 3350.1:2002.

This part 2 supplements or modifies the corresponding clauses of AS/NZS 3350.1 (referred to as part 1 in this part 2) so as to convert it into the Australian/New Zealand Standard: Safety of commercial dispensing appliances and vending machines.

Where a particular subclause of part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. Where this Standard states "addition", "modification" or "replacement", the relevant text in part 1 is to be adapted accordingly.

NOTE 1 Subclauses, notes, tables and figures which are additional to those in part 1 are numbered starting from 101. Annexes, which are additional to those in part 1 are lettered AA, BB, etc.

NOTE 2 In this Standard the following print types are used:

- requirements: in arial type;
- *test specifications: in italic type;*
- notes: in small arial type;

Words in **bold** in the text are defined in clause 2. When a definition of part 1 concerns an adjective, the adjective and the associated noun are also in bold.

The numbering of clauses, subclauses, notes, tables, figures and annexes follows that of IEC 60335-2-75:1995. To allow for the introduction of additional material by the IEC, the numbers 101 to 200 have been reserved. To allow for additional material to be introduced by Australia and New Zealand, the numbers 201 to 300 are used to number further clauses, subclauses, notes, tables and figures in part 1. The numbers 301 to 400 are used to number further clauses, subclauses, notes, tables and figures in this part 2. Additional annexes are lettered ZA, ZB and so on.

This scheme has been introduced to reduce the likelihood of the IEC and Australia and New Zealand using the same identifier for different purposes.

The use of the word VOID indicates that the IEC text is not used in Australia or New Zealand. The use of this word also avoids the need to renumber, clauses, notes, tables and figure if an earlier clause, note, table or figure is not used.

Annex A has been reformatted to indicate the Australia/New Zealand standard that is equivalent to the IEC standard or ISO standard to which normative reference is made.

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 on the cover and title page only.
- (b) In the source text "this International Standard" should read "this Australian/New Zealand Standard".

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

Variations to IEC 60335-2-75:1995 are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC tables, figures and passages of text which, for the purposes of this Australian/New Zealand standard are deleted. Where Australian/New Zealand tables, figures or passages of text 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.

Variations made to IEC 60335-2-75:1995 form the Australian variations for the purposes of the IECEE scheme for recognition of testing to standards for safety of electrical equipment (the CB scheme). These variations have been incorporated in the body of the standard. They are listed in Annex ZZ for easy reference.

AUSTRALIA/NEW ZEALAND STANDARD

SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2.75: Particular requirements for commercial dispensing appliances and vending machines (IEC 60335-2-75:1995, MOD)

1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of commercial electric **dispensing appliances** and **vending machines** for preparation or delivery of food, drinks and consumer products, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

NOTE 1 Examples of appliances which are within the scope of this standard are:

- hot water **dispensers**;
- ice **dispensers**;
- ice cream and whipped cream **dispensers**;
- hot and cold beverage **vending machines**;
- packaged food and drink **vending machines**;
- cigarette **vending machines**;
- newspaper, audio or video tape or disc **vending machines**;
- espresso coffee appliances;
- refrigerated merchandisers;
- bulk tea or coffee brewing machines;
- commercial liquid heaters.

Appliances may have more than one function.

NOTE 2 Other part 2s may be applicable for some functions such as

- refrigeration (IEC 60335-2-24);
- heating by microwaves (IEC 60335-2-25);
- coffee grinding (IEC 60335-2-64).

So far as is practicable, this standard deals with the common hazards presented by appliances which are encountered by users and **maintenance persons**.

This standard does not, in general, take into account young children playing with the appliance.

NOTE 3 Electrical parts of appliances using other forms of energy are within the scope of this standard.

NOTE 4 Attention is drawn to the fact that:

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- ~~– for appliances intended to be used in tropical countries, special requirements may be necessary;~~
- for the purposes of this standard, Australia and New Zealand are not considered to be tropical;
- in many countries, additional requirements for appliances incorporating pressure vessels are specified;
- in many countries, additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities.