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**SUPERSEDED BY AS 3303-1990**

*Under revision see*

Amendment 1 - Mar 1986  
" 2 - December 1987  
" 3 - May 1988  
Amendment 4 - July 1989

AS 3303-1984  
UDC.644.31:621.565.641.4:037

(Clearly follows IEC 335-2-24)

# Australian Standard 3303-1984

## APPROVAL AND TEST SPECIFICATION FOR PARTICULAR REQUIREMENTS FOR REFRIGERATORS AND FOOD FREEZERS



**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA  
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.**

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This Australian standard was prepared by Committee EL/2, Electrical Approvals Standards. It was approved on behalf of the Council of the Standards Association of Australia on 13 January 1984 and published on 1 March 1984.

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The following interests are represented on Committee EL/2:

- Australian Consumers Association
- Australian Electrical and Electronic Manufacturers Association
- Confederation of Australian Industry
- Consumer Electronics Suppliers Association
- Electrical Apparatus Approvals Authorities
- Electrical Testing Laboratories
- Electricity Supply Association of Australia

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**STANDARDS AUSTRALIA**

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**Amendment No 4**

**to**

**AS 3303—1984**

**Approval and test specification—  
Particular requirements for refrigerators and food freezers**

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**REVISED TEXT**

The 1984 edition of AS 3303, which was amended in March 1986, December 1987 and May 1988, is further amended as follows; the amendment should be inserted in the appropriate place.

**SUMMARY:** This Amendment applies to Clause 30.101.1.

Published on 14 July 1989.

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**AMENDMENT No 1**

**to**

**AS 3303—1984**

**Approval and Test Specification—**

**PARTICULAR REQUIREMENTS FOR REFRIGERATORS AND FOOD FREEZERS**

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**REVISED TEXT**

The 1984 edition of AS 3303 is amended as follows; the amendments should be inserted in the appropriate place.

**SUMMARY:** The following sections of the standard are covered by this amendment: Clauses 19.1 and 30, Appendices F, G, AA and BB, and Fig. AA1.

Published on 3 March 1986.

AS 3303/Amdt 3, 1988 03-09

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**AMENDMENT No 3**

to

**AS 3303—1984**

**APPROVAL AND TEST SPECIFICATION—**  
**PARTICULAR REQUIREMENTS FOR REFRIGERATORS AND**  
**FOOD FREEZERS**

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**REVISED TEXT**

The 1984 edition of AS 3303, which was amended in March 1986 and December 1987 is further amended as follows. The amendment should be inserted in the appropriate place.

**SUMMARY:** The following section of the Standard is covered by this Amendment: Clause 1.1.

Published 9 May 1988.

10 MAY 1988

AS 3303/Amendment 1987-12-01

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25 NOV 1987

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**AMENDMENT No. 2**

to

**AS 3303 - 1984**

**APPROVAL AND TEST SPECIFICATION FOR PARTICULAR  
REQUIREMENTS FOR REFRIGERATORS AND FOOD FREEZERS**



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**REVISED TEXT**

The 1984 edition of AS 3303 which was amended in March 1986, is further amended as follows; the amendment should be inserted in the appropriate place.

**SUMMARY:** The following section of the Standard is covered by this amendment: Clause 24.

Published on 1 December 1987.

## PREFACE

This standard was prepared by the Association's Committee on Electrical Approvals Standards.

It contains specific requirements for refrigerators and food freezers and is a supplementary specification to AS 3300, Approval and Test Specification for General Requirements for Household and Similar Electrical Appliances (which closely follows IEC 335-1).

The clauses of this standard supplement or modify the corresponding clauses in AS 3300. Where the reference in the text of this standard indicates an 'addition'; or 'replacement' of the relevant requirements, tests or explanation notes to AS 3300, these changes are made to the relevant text which then become part of the standard. It will be observed that when no such change is necessary, the words 'this Clause of AS 3300 is applicable' are used.

This standard closely follows IEC 335-2-24, Particular Requirements for Refrigerators and Food Freezers, but some of the requirements of that publication have been modified to take account of local conditions. Where this standard deviates technically from the IEC document by way of additional or different requirements, the deviation is indicated by a rule in the margin against the clause, or part thereof, affected. Where the requirements of AS 3300 do not apply to

Refrigerators and Food Freezers the words 'not applicable' are used. Where the requirements of AS 3300 are additional to the essential safety requirements presently specified in the AS 3100 series of specifications and are not to be applied, the words 'not required' are used. An annex to the standard lists the variations from IEC 335-2-24.

This edition was published to incorporate into the specification Amendment No 1 to AS 3303—1981 and to indicate those requirements of AS 3300 which are not required.

This specification supersedes AS 3303—1981 from date of publication.

This standard requires reference to the following standards:

- AS 1430 Household Refrigerators and Freezers
- AS 3191 Approval and Test Specification for Electric Flexible Cords
- AS 3300 Approval and Test Specification for General Requirements for Household and Similar Electrical Appliances
- AS C320 Classification of Insulation Materials for Electrical Machinery and Apparatus on the Basis of Thermal Stability in Service

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## STANDARDS ASSOCIATION OF AUSTRALIA

**Australian Standard**  
**APPROVAL AND TEST SPECIFICATION**  
**FOR**  
**PARTICULAR REQUIREMENTS**  
**FOR REFRIGERATORS AND FOOD FREEZERS**

**1. SCOPE**

This Clause of AS 3300 is applicable except as follows:

**REPLACEMENT.** Replace Clause 1.1 with the following:

**1.1 SCOPE AND APPLICATION.** This specification applies to electrical refrigerators, frozen food storage compartments or cabinet food freezers and their combinations available for household and similar use.

It deals with safety rules for the electrical equipment of such appliances, but does not cover features of construction and operation which are dealt with in AS 1430.

Where applicable, clauses of AS 3300 related to safety of heating appliances apply to absorption-type refrigerators or food freezers, and the heating elements incorporated in compression-type refrigerators or food freezers.

**NOTE 1** SEE AMENDMENT 3

**2. DEFINITIONS**

This Clause of AS 3300 is applicable except as follows:

Clauses 2.2.8, 2.2.16, 2.2.17, 2.2.25, 2.2.29, 2.2.30, 2.2.31, 2.2.32, 2.2.33, 2.2.34 and 2.2.46 are not applicable.

**ADDITIONS.** Add the following:

**2.2.101 Refrigerator** denotes an enclosed thermally insulated appliance designed for the storage of food and primarily intended for household use. The term 'refrigerator' includes 'freezer' either as part of the refrigerator or as a separate appliance.

**2.2.102** VOID.

**2.2.103** VOID.

**2.2.104** VOID.

**2.2.105 Compression-type appliance** denotes an appliance in which refrigeration is effected by the vaporization at low pressure in a heat exchanger (evaporator) of a liquid refrigerant, the vapour thus formed being restored to the liquid state by mechanical compression to a higher pressure, and subsequent cooling in another heat exchanger (condenser).

**2.2.106 Absorption-type appliance** denotes an appliance in which refrigeration is effected by the

evaporation in a heat exchanger (evaporator) of a liquid refrigerant, in the liquid state, the resulting vapour being then absorbed by an absorbent medium from which it is subsequently expelled at a higher partial vapour pressure by heating and liquified by cooling in another heat exchanger (condenser).

**2.2.107 Condenser** denotes a heat exchanger in which after compression vaporized refrigerant is liquified by rejecting heat to an external cooling medium.

**2.2.108 Evaporator** denotes a heat exchanger in which after pressure reduction the liquid refrigerant is vaporized by absorbing heat from the medium to be refrigerated.

**2.2.109 Free-standing appliance** denotes an appliance which is not intended for building in.

**2.2.110 Steady state** is considered to be obtained when three successive readings of the temperature, taken at approximately 60 min intervals, at the same point of any operating cycle, do not differ by more than 1°C.

**3. GENERAL REQUIREMENT**

This Clause of AS 3300 is applicable except as follows:  
**REPLACEMENT.**

**3.101 D.C. FROM A.C. APPLIANCES.** Replace paragraph 5 and Notes 1 and 2 with the following:

*The permissible direct current on the equipment neutral shall not exceed 5 mA.*

**4. GENERAL NOTES ON TESTS**

This Clause of AS 3300 is applicable except as follows:

**ADDITION.**

**4.2 SAMPLING.** Add the following notes:

**NOTES:**

1. Tests according to this standard may be carried out in conjunction with those of AS 1430.
2. Tests on separate compressor motors are under consideration.

**REPLACEMENT.** Replace Clause 4.3 by the following:

**4.3 ORDER OF TESTS.** Tests according to Clause 9 are carried out after tests according to Clause 11.7.

Tests according to Clause 10 are carried out after tests according to Clause 9.

Tests according to Clauses 11.1 to 11.104 are carried out after tests according to Clause 10.

Before testing, the appliance shall be operated for 24 h.