

1981

**SUPERSEDED BY**

*Dup*  
**AS 3303 -1984**

*Amendment 1 - June 1982*

**AS 3303—1981**  
UDC 621.31:621.565:641.4.037

# **Australian Standard 3303—1981**

To run concurrently with AS 3174-1979 for two years when AS 3174 will be withdrawn on 7, Sept 1983.  
See Preface

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



**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA  
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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this specification:

- Australian Chamber of Commerce
- Australian Electrical and Electronic Manufacturers Association
- Confederation of Australian Industry
- Electrical Apparatus Approvals Authorities
- Electric Contractors Associations of Australia
- Electrical Testing Laboratories
- Electrical Supply Association of Australia
- Electronics Importers Association

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This standard, prepared by Committee EL/2, Electrical Approvals Standards, was approved on behalf of the Council of the Standards Association of Australia on 24 June 1981, and was published on 7 September 1981.

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First published ..... 1981

*This standard was issued in draft form for public review as DR 80038.*

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**STANDARDS ASSOCIATION OF AUSTRALIA**

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**AMENDMENT No 1**

**to**

**AS 3303—1981**

**APPROVAL AND TEST SPECIFICATION**

**FOR**

**PARTICULAR REQUIREMENTS FOR REFRIGERATORS AND**

**FOOD FREEZERS**

**REVISIONS**

The 1981 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 3 to 30.

Published on 7 June 1982.

## 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. An annex to the standard lists the variations from IEC 335-2-24.

Preparation of this standard was undertaken to progressively align Australian approval and test specifications with IEC standards for appliances.

This standard will supersede AS 3174 two years after the date of publication. However, during the two-year period before withdrawal of AS 3174 while the two standards are concurrent for the same appliance, it is anticipated that regulatory authorities will approve appliances to either standard.

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 Service.

## CONTENTS

CLAUSE	Page		Page
1. SCOPE	4	25. SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CABLES AND CORDS	10
2. DEFINITIONS	4	26. TERMINALS FOR EXTERNAL CONDUCTORS	10
3. GENERAL REQUIREMENTS	4	27. PROVISION FOR EARTHING	10
4. GENERAL NOTES ON TESTS	4	28. SCREWS AND CONNECTIONS	10
5. RATING	5	29. CREEPAGE DISTANCES, CLEARANCES AND DISTANCES THROUGH INSULATION	10
6. CLASSIFICATION	5	30. RESISTANCE TO HEAT, FIRE AND TRACKING	10
7. MARKING	5	31. RESISTANCE TO RUSTING	10
8. PROTECTION AGAINST ELECTRIC SHOCK	5	32. RADIATION, TOXICITY AND SIMILAR HAZARDS	10
9. STARTING OF MOTOR-OPERATED APPLIANCES	5		
10. INPUT AND CURRENT	5	APPENDICES	
11. HEATING	6	A (VOID)	12
12. OPERATION UNDER OVERLOAD CONDITIONS	7	B ELECTRONIC CIRCUITS	12
13. ELECTRICAL INSULATION AND LEAKAGE CURRENT AT OPERATING TEMPERATURE	7	C (VOID)	12
14. RADIO AND TELEVISION INTERFERENCE	8	D ALTERNATIVE REQUIREMENTS FOR PROTECTED MOTOR UNITS	12
15. WINDING RESISTANCE	8	E MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES	12
16. INSULATION RESISTANCE AND ELECTRIC STRENGTH	8	AA LOCKED ROTOR TEST OF HERMETIC COMPRESSOR MOTORS	13
17. OVERLOAD PROTECTION	8	BB LOCKED ROTOR TEST OF FAN MOTORS	14
18. ENDURANCE	8		
19. ABNORMAL OPERATION	8	ANNEX	
20. STABILITY AND MECHANICAL HAZARDS	9	LIST OF VARIATIONS BETWEEN THIS SPECIFICATION AND IEC PUBLICATION 335-2-24	15
21. MECHANICAL STRENGTH	9		
22. CONSTRUCTION	9		
23. INTERNAL WIRING	10		
24. COMPONENTS	10		



STANDARDS ASSOCIATION OF AUSTRALIA

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**Australian Standard**

**APPROVAL AND TEST SPECIFICATION**

**FOR**

**PARTICULAR REQUIREMENTS**

**FOR REFRIGERATORS AND FOOD FREEZERS**

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### 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.

### 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, 2.2.26, 2.2.30, 2.2.31, 2.2.32, 2.2.33, 2.2.34 and 2.2.35 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 **SEE AMENDMENT** EXCEPT AS FOLLOWS:...

### 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.