

Australian Standard™

Refrigerated display cabinets

Part 12: Measurement of the heat extraction rate of the cabinets when the condensing unit is remote from the cabinet



This Australian Standard was prepared by Committee ME-008, Refrigerated Display Cabinets. It was approved on behalf of the Council of Standards Australia on 26 September 2003.

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The following are represented on Committee ME-008:

Australian Greenhouse Office
Australian Retailers Association
Commercial Refrigeration Manufacturers Association of Australia
Food Science Australia
Institution of Engineers Australia
Refrigeration Air Conditioning Companies Association

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Refrigerated display cabinets

Part 12: Measurement of the heat extraction rate of the cabinets when the condensing unit is remote from the cabinet

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standard New Zealand Committee ME-008, Refrigerated Display Cabinets, to supersede AS 1731.12—2000, *Refrigerated display cabinets, Part 12: Measurement of the heat extraction rate of cabinets when the condensing unit is remote from the cabinet*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

This Standard incorporates Amendment No. 1 (December 2005). 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.

This Standard is based on International Standard prEN ISO 23953-2:2003, *Refrigerated display cabinets, Part 2: Classification, requirements and test conditions*.

This Standard is Part 12 of a series of Standards for refrigerated display cabinets, as follows:

AS

1731	Refrigerated display cabinets
1731.1	Part 1: Terms and definitions
1731.2	Part 2: General mechanical and physical requirements
1731.3	Part 3: Linear dimensions, areas and volumes
1731.4	Part 4: General test conditions
1731.5	Part 5: Temperature test
1731.6	Part 6: Classification according to temperatures
1731.7	Part 7: Defrosting test
1731.8	Part 8: Water vapour condensation test
1731.9	Part 9: Electrical energy consumption test
1731.10	Part 10: Test for absence of odour and taste
1731.11	Part 11: Installation, maintenance and user guide
1731.12	Part 12: Measurement of the heat extraction rate of the cabinets when the condensing unit is remote from the cabinet (this Standard)
1731.13	Part 13: Test report
1731.14	Part 14: Minimum energy performance standard (MEPS) requirements

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STANDARDS AUSTRALIA

Australian Standard
Refrigerated display cabinets

Part 12: Measurement of the heat extraction rate of the cabinets when the
condensing unit is remote from the cabinet

1 SCOPE

1.1 Scope of Standard

A1

This Standard specifies terminology, general mechanical and physical requirements, test conditions as well as installation and maintenance, for commercial refrigerators and freezers used for the sale or display of food products including beverages.

This Standard does not cover refrigerated vending machines, ice-makers, cabinets intended for use in catering and similar non-retail applications.

1.2 Scope of Part 12

This Part of AS 1731 specifies heat extraction rate measurements and conditions for refrigerated display cabinets when the condensing unit is remote from the cabinet and used with compression-type or indirect-type refrigerating system.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 1731 Refrigerated display cabinets
- 1731.4 Part 4: General test conditions
- 1731.5 Part 5: Temperature test
- 1731.13 Part 13: Test report

AS/NZS

- 1677 Refrigerating systems
- 1677.1 Part 1: Refrigerant classification

3 OBJECTIVE

The objective of this Standard is to establish a procedure for the measurement of the heat extraction rate of remote and indirect refrigerating systems for use by manufacturers, suppliers, purchasers, operators and regulators of these systems.

4 TEST PROCEDURE

4.1 General test conditions

The cabinet shall be installed in the test room and the test shall be prepared and carried out during the temperature test, in accordance with AS 1731.4 and AS 1731.5.

The condensing unit shall be connected to the cabinet in accordance with Clauses 4.2 or 4.3 and the operating controls set to the manufacturer's instructions.