

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**

**STANDARDS**  
Australia



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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**Part 12: Measurement of the heat  
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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 colour 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

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 systems.

## 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.