

Australian Standard™

**Environmental testing**

**Part 3.7: Supporting documentation and  
guidance—Measurements in  
temperature chambers for tests A and B  
(with load)**

This Australian Standard was prepared by Committee EL-026, Protective Enclosures and Environmental Testing for Electrical/Electronic Equipment. It was approved on behalf of the Council of Standards Australia on 28 February 2003 and published on 8 May 2003.

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The following are represented on Committee EL-026:

Australian Chamber of Commerce and Industry  
Australian Electrical and Electronic Manufacturers Association  
Electrical Compliance Testing Authorities  
Electrical Regulatory Authorities Council  
Electricity Supply Association of Australia  
Testing Interests (Australia)

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## PREFACE

This Standard was prepared by the Standards Australia Committee EL-026, Protective Enclosures and Environmental Testing for Electrical/Electronic Equipment.

The objective of this Standard is to provide the electrotechnology industry with a complete set of environmental test procedures published as a series under AS 60068 *Environmental testing*. This Standard is Part 3.7 of that series.

This Standard is identical with, and has been reproduced from, IEC 60068-3-7:2001, *Environmental testing— Part 3-7: Supporting documentation and guidance – Measurement in temperature chambers for tests A and B (with load)*.

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- *test specifications: in italic type;*
- explanatory matter: in smaller arial type.

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## INTRODUCTION

IEC 60068 contains fundamental information on environmental testing procedures and severities.

The expression "environmental conditioning" or "environmental testing" covers the natural and artificial environments to which components or equipment may be exposed so that an assessment can be made of their performance under conditions of use, transport and storage to which they may be exposed in practice.

Temperature chambers used for "environmental conditioning" or "environmental testing" are not described in any publication, although the method of maintaining and measuring temperature and/or humidity has great influence on test results. The physical characteristics of temperature chambers can also influence test results.

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## STANDARDS AUSTRALIA

## Australian Standard

## Environmental testing

**Part 3.7: Supporting documentation and guidance—Measurements in temperature chambers for tests A and B (with load)****1 Scope**

This part of IEC 60068 provides a uniform and reproducible method of confirming that temperature test chambers conform to the requirements specified in climatic test procedures of IEC 60068-2-1 and IEC 60068-2-2, when loaded with either heat-dissipating and non-heat-dissipating specimens under conditions which take into account air circulation inside the working space of the chamber. This standard is destined primarily for users when conducting regular chamber performance monitoring.

**2 Normative references**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-2-1, *Environmental testing – Part 2: Tests – Test A: Cold*

IEC 60068-2-2, *Basic environmental testing procedures – Part 2: Tests. Test B: Dry heat*

IEC 60068-3-1, *Basic environmental testing procedures – Part 3: Background information – Section one: Cold and dry heat tests*

IEC 60068-3-5, *Environmental testing – Part 3-5: Supporting documentation and guidance – Confirmation of the performance of temperature chambers*

IEC 60068-3-6, *Environmental testing – Part 3-6: Supporting documentation and guidance – Confirmation of the performance of temperature/humidity chambers*

IEC 60584-1, *Thermocouples – Part 1: Reference tables*

IEC 60751, *Industrial platinum resistance thermometer sensors*

**3 Definitions**

For the purpose of this part of IEC 60068, the following definitions apply.

**3.1 Test specification**

procedure applied to test chambers with or without forced air circulation; suitable for a wide range of chamber sizes

NOTE A summary of test conditions in IEC 60068-2-1 and IEC 60068-2-2 is given in the following table: