AS 60068.2.1—2003
IEC 60068-2-1:1990
IEC 60068-2-1:1990/Amd 1:1993
IEC 60068-2-1:1990/Amd 2:1994
Reconfirmed 2018

Australian Standard™

Environmental testing

Part 2.1: Tests—Tests A: Cold

Standards Australia

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 14 February 2003 and published on 20 March 2003.

The following are represented on Committee EL-026:

Australian Chamber of Commerce and Industry

Australian Electrical and Electronic Manufacturer's Association

Electrical Compliance Testing Association

Electrical Regulatory Authorities Council

Electricity Supply Association of Australia

Testing Interests (Australia)

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STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 60068.2.1–2003
Environmental testing
Part 2.1: Tests–Tests A: Cold

RECONFIRMATION NOTICE

Major stakeholders of this publication have reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 29 August 2018.

NOTES

Australian Standard™

Environmental testing

Part 2.1: Tests—Tests A: Cold

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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 2.1 of that series.

This Standard is identical with, and has been reproduced, from IEC 60068-2-1:1990, *Environmental testing – Part 2: Tests – Tests A: Cold* incorporating Amendment 1:1993 and Amendment 2:1994.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'this international standard' should read 'this Australian Standard'.

(c) A full point should be substituted for a comma when referring to a decimal marker.

(d) Any French text on figures should be ignored.

In this Standard, the following print types are used:

– requirements proper: in arial type;

– *test specifications: in italic type;*

– explanatory matter: in smaller arial type.

Any international Standard referenced should be replaced by an equivalent Australian Standard when one is available. The availability of equivalent Australian Standards can be determined either from the Standards Australia catalogue or from the Standards Australia website (www.standards.com.au).

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STANDARDS AUSTRALIA

Australian Standard

Environmental testing
Part 2.1: Tests—Tests A: Cold

INTRODUCTION

1 General

This publication deals with cold tests applicable both to non heat-dissipating and heat-dissipating specimens. For non heat-dissipating specimens, Tests Aa and Ab do not deviate essentially from earlier issues.

The object of the cold test is limited to the determination of the ability of components, equipment or other articles to be used or stored at low temperature.

These cold tests do not enable the ability of specimens to withstand or operate during temperature variations to be assessed. In this case, it would be necessary to use Test N: Change of temperature.

The cold tests are subdivided as follows:

Cold tests for non heat-dissipating specimens

- with sudden change of temperature, Aa;
- with gradual change of temperature, Ab.

Cold test for heat-dissipating specimens

- with gradual change of temperature, Ad.

The procedures given in this publication are normally intended for specimens which achieve temperature stability during the performance of the test procedure.

The duration of the test commences at the time when temperature stability of the specimen has been reached.

For the exceptional cases when the specimen does not reach temperature stability during the performance of the test procedure, the duration of the test commences at the time when the test chamber reaches the test temperature.

The relevant specification shall define:

a) the rate of change of temperature in the test chamber;

b) the time at which the specimens are introduced into the test chamber;

c) the time at which the exposure commences;

d) the time at which the specimens are energized.

For these cases, the specification writer will find guidance on choosing the above four parameters in IEC 60068-3-1. (Amendments to cover these cases are under consideration.)