AS 3726.3—1989
ISO 512-3 (1976)

Australian Standard®

Electromechanical components for electronic equipment—Basic testing procedures and measuring methods

Part 3: Current-carrying capacity tests

This Australian Standard was prepared by Committee ET/5, Environmental Testing. It was approved on behalf of the Council of Standards Australia on 5 June 1989 and published on 6 November 1989.

The following interests are represented on Committee ET/5:

Aerospace Technologies of Australia

Confederation of Australian Industry

Department of Administrative Services

Department of Defence

Electricity Supply Association of Australia

Institution of Engineers, Australia

National Association of Testing Authorities

Society of Automotive Engineers, Australasia

Telecom Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee on Environmental Testing Procedures. It is identical with and reproduced from IEC 512-3(1976), *Current-carrying capacity tests*, as Part 3 of a series published by IEC/TC48, Electromechanical Components for Electronic Equipment.

The purpose of Part 3 is to specify uniform tests suitable for use with electro-mechanical components, with a connection or switching function, for determining the current carrying capacity of the component under particular circumstances. Tests include a temperature rise test and a current-temperature derating procedure.

The page numbers of the IEC English text are given on the bottom left hand corner of each page of this Standard.

For the purpose of this Australian Standard, the text of the IEC Publication used herein should be modified as follows:

Terminology: The words 'Australian Standard' should replace the words 'IEC Publication' wherever they appear.

STANDARDS AUSTRALIA

Australian Standard

Electromechanical components for electronic equipment—Basic testing procedures and measuring methods

Part 3: Current-carrying capacity tests

Scope

The tests contained herein, when required by the detail specification, shall be used for electromechanical components within the scope of Technical Committee No. 48.*

They may also be used for similar devices when specified in a detail specification.

1. Test 5a: Temperature rise

1.1 *Object*

The object of this test is to detail a standard test method to assess the ability of a component to carry continuously its specified current without exceeding a specified temperature rise.

1.2 *Preparation of the specimen*

The specimen shall be fitted with temperature-sensing device(s), wired with a minimum length of 500 mm (20 in) of the specified size wire, and mounted as specified in the detail specification.

Note. — Care must be taken to protect the specimen under test from draughts or other artificial cooling.

1.3 *Test method*

A specified test current shall be applied to each contact of the specimen for a period of 5 h.

Ambient temperature shall be recorded before and after the test.

1.4 *Requirements*

a) Every contact of the specimen must be capable of carrying the specified test current for a period of 5 h without exceeding the specified temperature rise.

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* *Scope of Technical Committee No.48:* To prepare international standards regarding components having an inherent electromechanical connecting or switching function, intended for use in equipment for telecommunication and in electronic devices employing similar techniques.

Notes 1. – R.F. connectors will not be dealt with by this Technical Committee as they will be covered by Technical Committee No.46 together with r.f. cables.

2. – Sockets for components such as crystals or electronic tubes shall he considered in co-operation with the relevant Technical Committee.