

3149

WITHDRAWN: 1997/105 Amendment 1 - November 1989.  
" 2 - April 1997

Superseded by AS/NZS 3164:1994

AS 3149—1987  
UDC 621.31:621.365.4:644.194

~~RUNNING CONCURRENTLY FOR 3 YEARS~~

see Draft Amd 2 - DR 96464

# Australian Standard® 3149—1987

~~REFERENCE COPY  
INFORMATION CENTRE  
STANDARDS AUSTRALIA~~

---

## APPROVAL AND TEST SPECIFICATION— FLEXIBLE ELECTRIC HEATING PADS



**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA  
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.**

*Incorporated by Royal Charter*



This Australian standard was prepared by Committee EL/2, Electrical Approvals Standards. It was approved on behalf of the Council of the Standards Association of Australia on 24 February 1987 and published on 6 April 1987.

---

The following interests are represented on Committee EL/2:

- Australian Chamber of Commerce
- Australian Consumers Association
- Australian Electrical and Electronic Manufacturers Association
- Confederation of Australian Industry
- Consumer Electronics Suppliers Association
- Electrical Apparatus Approvals Authorities
- Electrical Supply Association of Australia
- Electrical Testing Laboratories
- Institution of Engineers Australia

---

*Review of Australian Standards.* To keep abreast of progress in industry, Australian standards are subject to periodic review and are kept up-to-date by the issue of amendments or new editions as necessary. It is important therefore that standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all SAA publications will be found in the Catalogue of SAA Publications; this information is supplemented each month by SAA's journal 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn standards.

Suggestions for improvements to Australian standards, addressed to the head office of the Association, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian standard should be made without delay in order that the matter may be investigated and appropriate action taken.

First published as AS C149 .....	1951
Amended and redated .....	1954
Revised and issued as AS 3149 .....	1974
Second edition .....	1982
Third edition .....	1987 ✓

This standard was issued in draft form for comment as DR 85314.

ISBN 0 7262 4604 2

AS 3149/Amdt 2/1997-04-05

STANDARDS AUSTRALIA

---

**Amendment No. 2**

to

**AS 3149—1987**

**Approval and test specification—Flexible electric heating pads**

---

**REVISED TEXT**

STANDARDS AUSTRALIA

14 MAR 1997

SYDNEY INFO. CENTRE

The 1987 edition of AS 3149 is amended as follows; the amendments should be inserted in the appropriate places.

*SUMMARY:* This Amendment applies to Table 1 and Clause 11.12.

Published on 5 April 1997.

**STANDARDS AUSTRALIA**

---

**Amendment No 1**

**to**

**AS 3149—1987**

**Approval and test specification  
Flexible electric heating pads**

---

**REVISED TEXT**



The 1987 edition of AS 3149 is amended as follows; the amendment(s) should be inserted in the appropriate place.

**SUMMARY:** This Amendment applies to Clauses 1.2, 4 and 11.2.

Published on 6 November 1989.

## PREFACE

This standard was prepared by the Association's Committee on Electrical Approvals Standards.

It is one of a series of approval and test specifications issued by the Association. These specifications are accompanied by a general specification AS 3100, containing definitions and general requirements for electrical materials and equipment. The purpose of these specifications is to outline conditions which must be met to secure approval for the sale and use of electrical equipment in Australia. Only safety matters and related conditions are covered.

This edition was published to clarify that AS 3149 applies to heating pads intended to operate at low voltage and to apply heat to a part or parts of the body.

This specification supersedes AS 3149—1982 on date of publication.

The Association desires to call attention to the fact that this specification does not purport to include all the necessary conditions of a contract.

## CONTENTS

	<i>Page</i>
1 SCOPE AND REFERENCED DOCUMENTS	4
2 DEFINITIONS	4
3 COMPLIANCE WITH SPECIFICATIONS	4
4 TRANSFORMERS	4
5 ENCLOSURE	4
6 HEATING UNIT	4
7 MEANS OF CONNECTION	4
8 THERMOSTATS	4
9 LOADING	4
10 MARKING	5
11 TESTING OF HEATING PADS	5
APPENDIX A. APPARATUS AND METHOD OF TEST FOR FLEXIBILITY	7

© Copyright — STANDARDS ASSOCIATION OF AUSTRALIA 1987

Users of standards are reminded that copyright subsists in all SAA publications. No part of this publication may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing of the Standards Association of Australia.



STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
APPROVAL AND TEST SPECIFICATION—
FLEXIBLE ELECTRIC HEATING PADS

This specification shall be read in conjunction with AS 3100. (See also Clause 3, below.)

1 SCOPE AND REFERENCED DOCUMENTS.

1.1 Scope. This specification applies to flexible heating pads intended to be connected directly or indirectly to a low-voltage supply and to apply heat to a part or parts of the human body.

The specification deals with the control or switching of the supply for the purpose of enabling the heating pad to be used.

1.2 Referenced documents and test specifications

AS 3100 Definitions of Electrical Terms

AS 3108 Isolating Transformers

SEE AMENDMENT 1

AS 3126 Extra-low-voltage transformers

AS 3161 Thermostats and Energy Regulators

AS 3164 Electric Blankets

AS 3191 Electric Flexible Cords.

2 DEFINITIONS. For the purpose of this specification, the following definitions apply:

2.1 Electric heating pad—an appliance in the form of a pad which is heated by means of an electric heating element contained within an envelope, with or without a further enclosure, whose projected surface area does not exceed 0.6 m².

2.2 Heating element—the actual electrical conducting medium which is heated by an electric current.

3 COMPLIANCE WITH SPECIFICATIONS.

3.1 General requirements of AS 3100. This specification shall be read in conjunction with AS 3100 and the appropriate provisions of AS 3100 shall apply to the construction of the heating pad and the insulation and/or safeguarding of parts which normally carry current.

3.2 Specific requirements of this specification. A heating pad shall be deemed to comply with this specification only if it complies with all the requirements of this specification and passes the tests specified herein.

3.3 Requirements of other specifications. Equipment and components incorporated in a heating pad which are depended upon for safety shall comply with the appropriate requirements of any relevant approval and test specification unless such requirements are varied herein.

4 TRANSFORMERS. Any transformer supplied with a heating pad shall comply with the appropriate requirements of AS 3108 or AS 3126. SEE AMENDMENT 1

5 ENCLOSURE. Materials of the enclosure, which may be the envelope of a heating pad, shall be strong, durable, flexible and satisfy the requirements of Clause 11.11. Unless the heating element and other live parts are contained in a separate enclosure, the enclosure shall be of a type which is suitable for use in a bathroom or other wet areas.

The heating element shall be secured on a supporting fabric and shall have adjacent sections evenly spaced. The supporting fabric shall have sufficient rigidity or be so reinforced as to maintain the intended spacing between adjacent sections under conditions of normal use.

7 MEANS OF CONNECTION. The heating pad shall be supplied complete with flexible cord complying with AS 3191. Such flexible cord shall be directly connected to the heating element and shall be securely fixed to the pad in such a way that a pull on the flexible cord will not be transmitted to any wiring connections.

Any flexible cord provided with the heating pad for the purpose of connecting it to the supply shall—

- (a) be a sheathed type not inferior to a light duty type;
(b) be correctly wired in accordance with the appropriate requirements of Clause 4.4 of AS 3100;
(c) have an unbroken length from the plug of at least 1.8 m; and
(d) have a free length of at least 0.9 m from the pad to any cord-line device.

Any cord-line switch or control device, other than a control device of the free-standing type, provided for the control of a heating pad, shall be fitted with a cord protection device complying with the requirements of Clause 8.5 of AS 3164.

8 THERMOSTATS. Thermostats shall comply with the relevant requirements of AS 3161.

9 LOADING. The loading shall not exceed the marked loading by more than 10 percent.