

AS/NZS 60745.2.9:2003
(IEC 60745-2-9:2003, IDT)

Australian/New Zealand Standard™

HAND-HELD MOTOR-OPERATED
ELECTRIC TOOLS – SAFETY –

Part 2.9: Particular requirements for
tappers
(IEC 60745-2-9:2003, IDT)

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/2 - Safety of household and similar electrical appliances and small power transformers. It was approved on behalf of the Council of Standards Australia on 1 September 2003 and by the Council of Standards New Zealand on 9 September 2003. It was published on 14 November 2003.

The following interests are represented on Committee EL/2

Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Canterbury Manufacturers Association New Zealand
Consumer Electronic Suppliers Association, Australia
Electrical regulatory authorities, Australia
Electrical test laboratories
Electrical consultants
Electricity Supply Association of Australia
Institution of Engineers Australia
Metal Trades Industries Association of Australia
Ministry of Consumer Affairs, New Zealand

Keeping Standards up-to-date

Standards are living documents, which reflect progress in science, technology and systems.

To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue. Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comment to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

AS/NZS 60745.2.9:2003
(IEC 60745-2-9:2003, IDT)

Australian/New Zealand Standard™

HAND-HELD MOTOR-OPERATED
ELECTRIC TOOLS – SAFETY –

Part 2.9: Particular requirements for
tappers
(IEC 60745-2-9:2003, IDT)

Originated as AS/NZS 60745.2.9:2003

COPYRIGHT

© Standards Australia/ Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher

Published jointly by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001 Australia, and
Standards New Zealand
Private Bag 2439, Wellington 6020, New Zealand
ISBN 0 7337 5694 8

CONTENTS

FOREWORD.....	4
1 Scope	6
2 Normative references	6
3 Definitions	6
4 General requirements	6
5 General conditions for the tests	6
6 Void	6
7 Classification.....	6
8 Marking and instructions	7
9 Protection against access to live parts	7
10 Starting	7
11 Input and current	7
12 Heating	7
13 Leakage current	7
14 Moisture resistance	7
15 Electric strength	7
16 Overload protection of transformers and associated circuits	8
17 Endurance.....	8
18 Abnormal operation	8
19 Mechanical hazards.....	8
20 Mechanical strength	8
21 Construction.....	8
22 Internal wiring.....	8
23 Components	8
24 Supply connection and external flexible cords	8
25 Terminals for external conductors	8
26 Provision for earthing.....	8
27 Screws and connections	8
28 Creepage distances, clearances and distances through insulation	9
29 Resistance to heat, fire and tracking	9
30 Resistance to rusting	9
31 Radiation, toxicity and similar hazards	9

Annexes	10
Annex K (normative) Battery tools and battery packs	10
Annex L (normative) Battery tools and battery packs provided with mains connection or non-isolated sources	10
Annex ZZ (informative) Variations to IEC 60745-2-9:2003 for application in Australia and New Zealand	11
Bibliography	10

AUSTRALIA/NEW ZEALAND STANDARD

HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS – SAFETY –

Part 2.9: Particular requirements for tappers

FOREWORD

This standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002- Safety of Household and Similar Electrical Appliances and Small Power Transformers to supersede in part AS/NZS 3160:2001, *Approval and test specification – Hand-held portable tools*, 3 years from publication. During this period it is anticipated that regulatory authorities will approve tappers to either standard.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with safety requirements designed to give the user protection against hazards that might occur during normal operation and abnormal operation of the tool and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand

This Standard is an adoption with national modifications and contains the full text of the second edition of IEC 60745-2-9:2003, *Hand-held motor-operated electric tools – Safety – Part 2-9: Particular requirements for tappers*, and has been varied as indicated to take account of Australian and New Zealand conditions.

This part is to be used in conjunction with AS/NZS 60745.1:2003 and its amendments. The Parts 2 contain clauses to supplement or modify the corresponding clauses in this part to provide the relevant requirements for each type of tool.

NOTE 1 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

The numbering of clauses, subclauses, notes, tables, figures and annexes follows that of IEC 60745-2-9:2003. To allow for the introduction of additional material by the IEC, the numbers 101 to 200 have been reserved. To allow for additional material to be introduced by Australia and New Zealand, the numbers 201 to 300 are used to number further clauses, subclauses, notes, tables and figures in part 1. Additional annexes are lettered ZA, ZB and so on.

This scheme has been introduced to reduce the likelihood of the IEC and Australia and New Zealand using the same identifier for different purposes.

The use of the word VOID indicates that the IEC text is not used in Australia or New Zealand. The use of this word also avoids the need to renumber, clauses, notes, tables and figure if an earlier clause, note, table or figure is not used.

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 on the cover and title page only.

- (b) In the source text "this International Standard" should read "this Australian/New Zealand Standard".
- (c) A full point substitutes for a comma when referring to a decimal marker.

Variations to IEC 60745-2-9:2003 are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC tables, figures and passages of text which, for the purposes of this Australian/New Zealand standard are deleted. Where Australian/New Zealand tables, figures or passages of text are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border.

Variations made to IEC 60745-2-9:2003 form the Australian variations for the purposes of the IECEE scheme for recognition of testing to standards for safety of electrical equipment (the CB scheme). These variations have been incorporated in the body of the standard. They are listed in Annex ZZ for easy reference.

The essential safety requirements in AS/NZS 3820 that could be applicable to tappers are covered by this standard.

**HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS –
SAFETY –****Part 2.9: Particular requirements for tappers****1 Scope**

This clause of Part 1 is applicable except as follows:

1.1 Addition:

This standard applies to tappers.

2 Normative references

This clause of Part 1 is applicable.

3 Definitions

This clause of Part 1 is applicable except as follows:

Additional definition:

3.101**tapper**

tool intended for cutting internal screw threads

4 General requirements

This clause of Part 1 is applicable.

5 General conditions for the tests

This clause of Part 1 is applicable.

6 Void**7 Classification**

This clause of Part 1 is applicable.