

AS/NZS 60335.2.35:2013

IEC 60335-2-35 Ed 5.2

(Incorporating Amendments up to and including No. 2)



Australian/New Zealand Standard™

# Household and similar electrical appliances — Safety

**Part 2.35: Particular requirements for instantaneous water heaters**



AS/NZS 60335.2.35:2013

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee EL-002, Safety of Household and Similar Electrical Appliances and Small Power Transformers and Power Supplies. It was approved on behalf of the Council of Standards Australia on 2 October 2013 and by the Council of Standards New Zealand on 20 September 2013. It was published on 25 October 2013.

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The following are represented on Committee EL-002:

- Association of Accredited Certification Bodies
- Australian Industry Group
- National Retailers Association (Australia)
- Business New Zealand
- Consumer Electronic Suppliers Association, Australia
- Consumers' Federation of Australia
- Electrical Regulatory Authorities, Australia
- Electrical consultants
- Engineers Australia
- JAS-ANZ
- Testing Interests New Zealand
- WorkSafe, New Zealand
- New Zealand Electric Fence Energizer Manufacturers' Standards Group

This Standard was issued in draft form for comment as DR 13908.

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Australian/New Zealand Standard™

# Household and similar electrical appliances — Safety

## Part 2.35: Particular requirements for instantaneous water heaters

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

## AS/NZS 60335.2.35:2013

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
SAFETY –

## Part 2.35: Particular requirements for instantaneous water heaters

## 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 AS/NZS 60335.2.35:2004 three years from the date of publication.

A1

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 appliance 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.

The text of IEC 60335-2-35 Ed 5, prepared by IEC Technical Committee TC 61, was submitted to the Standards Australia/Standards New Zealand Combined Procedure (dual public comment and committee vote) for adoption of the IEC standard as a Standards Australia/Standards New Zealand joint standard.

The principal changes in this edition as compared with the fourth edition of IEC 60335-2-35 and its amendments are as follows (minor changes are not listed).

- converted notes to normative text (7.12, 7.102, 8.1.5, 22.104, and 22.109.3);
- deleted notes in 19.13, 22.109, and A.101;
- added Annex R and 22.108 for appliances with programmable electronic circuits;
- added requirements for water heaters (22.50, 22.51).

A1

The text of IEC 60335-2-35 edition 5 amendment 1, prepared by IEC Technical Committee TC 61, was submitted to the Standards Australia/Standards New Zealand Combined Procedure (dual public comment and committee vote) for adoption as an amendment to the Standards Australia/Standards New Zealand joint standard AS/NZS 60335.2.35:2013.

A2  
DOW  
25/6/23

This Standard incorporates Amendment No. 1 (November 2017). The changes required by the amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected. Where an application date other than immediate is applicable to an amendment the date of application (DOA) and the date of withdrawal (DOW) if relevant, is indicated by the marginal bar against the part affected. Unless otherwise indicated, the application dates of the changes introduced by Amendment No.1 is November 2019).

This standard is an adoption with national modifications of the fifth edition of IEC 60335-2-35, *Household and similar electrical appliances – Safety – Part 2-35: Particular requirements for*

A2  
DOW  
25/6/23

*instantaneous water heaters* including its amendment 1 (2016). It has been varied as indicated to take account of Australian and New Zealand conditions.

The text of IEC 60335-2-35 edition 5 amendment 2, prepared by IEC Technical Subcommittee TC 61, was submitted to the Standards Australia/Standards New Zealand Combined Procedure (dual public comment and committee vote) for adoption as an amendment to the Standards Australia/Standards New Zealand joint standard AS/NZS 60335.2.35:2013.

A2  
DOA  
25/6/23

This standard incorporates Amendment No. 1 (November 2017) and Amendment No. 2 June 2021). The changes introduced by amendments are indicated in the text by a marginal bar and amendment number against the part affected. Where an application date other than immediate is applicable to an amendment the date of application (DOA) and the date of withdrawal (DOW) if relevant, is indicated by the marginal bar against the part affected. Unless otherwise indicated, the application date of the changes introduced by Amendment No. 2 is 25 June 2023.

NOTE: Regulatory authorities that reference this Standard in regulation may apply these amendment requirements at a different time. Users of this Standard should consult with these authorities to confirm their requirements

This standard is an adoption with national modifications of the fifth edition of IEC 60335-2-35, *Household and similar electrical appliances – Safety – Part 2-35: Particular requirements for instantaneous water heaters* including its amendment 1 (2016) and amendment 2 (2020). It has been varied as indicated to take account of Australian and New Zealand conditions

A2

This part 2 has to be used in conjunction with the latest edition of AS/NZS 60335.1 Household and similar electrical appliances – Safety – Part 1: General requirements and its Amendments. It was established on the basis of AS/NZS 60335.1:2020.

This part 2 supplements or modifies the corresponding clauses of AS/NZS 60335.1 so as to convert it into the Australian/New Zealand Standard: Safety requirements for instantaneous water heaters.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

NOTE 1 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.;
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letters AZ.

NOTE 2 The following print types are used:

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

Words in **bold** in the text are defined in Clause 3.

p NOTE 3 In this document, p is used in the margin to indicate instructions for preparing a consolidated version.

The essential safety requirements in AS/NZS 3820<sup>1</sup> that could be applicable to requirements for instantaneous water heaters are covered by this standard.

A1

<sup>1</sup> AS/NZS 3820 *Essential safety requirements for electrical equipment*

A2  
DOW  
25/6/23 | The national variations to IEC 60335-2-35 Ed 5.1 form the Australian and New Zealand national variations for purposes of the IECEE scheme for recognition of results of testing to standards for safety of electrical equipment (the CB scheme).

A2  
DOA  
25/6/23 | The national variations to IEC 60335-2-35 Ed 5.2 form the Australian and New Zealand national variations for purposes of the IECEE scheme for recognition of results of testing to standards for safety of electrical equipment (the CB scheme).

There are no national variations from the IEC Standard from which this standard is adopted, other than those listed in the national variations to AS/NZS 60335.1.

A1

A2  
DOW  
25/6/23

The text of the International Standard IEC 60335-2-35 Ed 5.1 was approved as a joint Australia/New Zealand Standard with the agreed national variations as given below.

A2  
DOA  
25/6/23

The text of the International Standard IEC 60335-2-35 Ed 5.2 was approved as a joint Australia/New Zealand Standard with the agreed national variations as given below.

### AUSTRALIAN NATIONAL VARIATIONS

A2

There are no national variations to this Part 2 other than those listed in the national variations to AS/NZS 60335.1:2020.

### NEW ZEALAND NATIONAL VARIATIONS

A2

There are no national variations to this Part 2 other than those listed in the national variations to AS/NZS 60335.1:2020.

### Annex ANZ (normative)

#### Normative references to international publications with their corresponding joint Australia/New Zealand publications

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.

NOTE When an international publication has been modified by national variations the relevant joint Australia/New Zealand publications applies if the national variations are needed to ensure the safety of the appliance for Australia/New Zealand conditions. These international publications are indicated by (mod). If an international publication is not so indicated, then either it or the listed Australia/New Zealand publication may be used.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>AS/NZS</u> | <u>Year</u> |
|--------------------|-------------|--------------|---------------|-------------|
|--------------------|-------------|--------------|---------------|-------------|



## CONTENTS

|                                                                         |    |
|-------------------------------------------------------------------------|----|
| FOREWORD .....                                                          | 4  |
| INTRODUCTION .....                                                      | 7  |
| 1 Scope .....                                                           | 8  |
| 2 Normative references .....                                            | 8  |
| 3 Terms and definitions .....                                           | 9  |
| 4 General requirement .....                                             | 9  |
| 5 General conditions for the tests .....                                | 9  |
| 6 Classification .....                                                  | 10 |
| 7 Marking and instructions .....                                        | 10 |
| 8 Protection against access to live parts .....                         | 12 |
| 9 Starting of motor-operated appliances .....                           | 12 |
| 10 Power input and current .....                                        | 12 |
| 11 Heating .....                                                        | 12 |
| 12 Void .....                                                           | 13 |
| 13 Leakage current and electric strength at operating temperature ..... | 13 |
| 14 Transient overvoltages .....                                         | 14 |
| 15 Moisture resistance .....                                            | 14 |
| 16 Leakage current and electric strength .....                          | 14 |
| 17 Overload protection of transformers and associated circuits .....    | 14 |
| 18 Endurance .....                                                      | 14 |
| 19 Abnormal operation .....                                             | 14 |
| 20 Stability and mechanical hazards .....                               | 15 |
| 21 Mechanical strength .....                                            | 15 |
| 22 Construction .....                                                   | 15 |
| 23 Internal wiring .....                                                | 19 |
| 24 Components .....                                                     | 19 |
| 25 Supply connection and external flexible cords .....                  | 20 |
| 26 Terminals for external conductors .....                              | 20 |
| 27 Provision for earthing .....                                         | 20 |
| 28 Screws and connections .....                                         | 21 |
| 29 Clearances, creepage distances and solid insulation .....            | 21 |
| 30 Resistance to heat and fire .....                                    | 21 |
| 31 Resistance to rusting .....                                          | 21 |
| 32 Radiation, toxicity and similar hazards .....                        | 21 |
| Annexes .....                                                           | 24 |
| Annex A (informative) Routine tests .....                               | 24 |
| Annex R (normative) Software evaluation .....                           | 25 |
| Bibliography .....                                                      | 26 |

Figure 101 – Diagram for the leakage current measurement for single-phase bare-element water heaters

Figure 102 – Diagram for the leakage current measurement for three-phase bare-element water heaters .....23

Figure 103 – Diagram for the leakage current measurement for single-phase bare-element water heaters supplied by a supply cord fitted with a plug.....23

Figure 104 – Probe for measuring surface temperatures .....24

  

Table 101 – Maximum temperature rises for specified external accessible surfaces under normal operating conditions ..... 13

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
SAFETY –****Part 2-35: Particular requirements for instantaneous water heaters****FOREWORD**

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**This consolidated version of the official IEC Standard and its amendments has been prepared for user convenience.**

**IEC 60335-2-35 edition 5.2 contains the fifth edition (2012-11) [documents 61/4454/FDIS and 61/4507/RVD], its amendment 1 (2016-11) [documents 61/5282/FDIS and 61/5299/RVD] and its amendment 2 (2020-06) [documents 61/5932/CDV and 61/6005/RVC].**

**This Final version does not show where the technical content is modified by amendments 1 and 2. A separate Redline version with all changes highlighted is available in this publication.**