



MALAYSIAN STANDARD

MS 1597-2-35:2019

**Household and similar electrical appliances -
Safety - Part 2-35: Particular requirements for
instantaneous water heater
(Third revision)
(IEC 60335-2-35:2016, MOD)**

ICS: 13.120, 97.040.50

Descriptors: domestic product, safety, instantaneous water heater

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Committee representation

The Industry Standards Committee on Electrical and Electronics Equipments and Accessories (ISC S) under whose authority this Malaysian Standard was adopted, comprises representatives from the following organisations:

Department of Standards Malaysia
Energy Commission
Jabatan Kerja Raya
Lembaga Perlesenan Tenaga Atom
Malaysian Association of Standards Users (MASU)
Malaysian Cable Manufacturers Association
Malaysian Electrical Appliances and Distributors Association
Ministry of Domestic Trade, Co-operatives and Consumerism
Ministry of International Trade and Industry
Multimedia University
PETRONAS Group Technical Solutions
SIRIM Berhad (Secretariat)
SIRIM QAS International Sdn Bhd
Suruhanjaya Komunikasi dan Multimedia Malaysia
Tenaga Nasional Berhad
The Electrical and Electronics Association of Malaysia
Universiti Teknologi Malaysia
Universiti Tenaga Nasional

The Technical Committee on Safety of Household and Similar Electrical Appliances which supervised the adoption of the IEC Standard as Malaysian Standard consists of representatives from the following organisations:

Daikin Refrigeration Malaysia Sdn Bhd
Energy Commission
Independent
Jabatan Kerja Raya
Khind-Mistral Industries Sdn Bhd
Malaysian Electrical Appliances and Distributors Association
Panasonic Manufacturing Malaysia Berhad
Sharp Electronics (M) Sdn Bhd
SIRIM Berhad (Secretariat)
SIRIM QAS International Sdn Bhd (Product Certification and Inspection Department)
SIRIM QAS International Sdn Bhd (Testing Services Department)
The Electrical and Electronics Association of Malaysia
Thermo Hygro Consultants Sdn Bhd
Universiti Malaya
Universiti Teknologi Malaysia
Universiti Teknologi MARA

The Working Group on Electrical Household for Heating Appliances which recommended the adoption of the IEC Standard consists of representatives from the following organisations:

Alpha Electric Co Sdn Bhd
Energy Commission
Jabatan Kerja Raya
Khind-Mistral Industries Sdn Bhd
Panasonic Manufacturing Malaysia Berhad
Persatuan Kekompetenan Penjaga Jentera & Pendawai Elektrik
SEERS Marketing Sdn Bhd
SIRIM Berhad (Secretariat)
SIRIM QAS International Sdn Bhd (Product Certification and Inspection Department)
SIRIM QAS International Sdn Bhd (Testing Services Department)
Thermo Hygro Consultants Sdn Bhd
Universiti Malaya
Universiti Teknologi MARA

National foreword

The adoption of the IEC Standard as a Malaysian Standard was recommended by the Working Group on Electrical Household for Heating Appliances under the authority of the Industry Standards Committee on Electrical and Electronics Equipments and Accessories.

This Malaysian Standard is a modified adoption of IEC 60335-2-35:2016, *Household and Similar Electrical Appliances - Safety - Part 2-35: Particular Requirements for Instantaneous Water Heaters*, published by the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) with the following modifications:

- a) in the source text, "this International Standard" has been replaced "this Malaysian Standard";
- b) the comma which is used as a decimal sign, has been replaced by a point;
- c) the basis IEC 60335-2-35 is printed in English and French languages. However, only the English version applied for this Malaysian Standard; and

d)	Clause/Subclause	Modifications
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5.7	General conditions for the tests	Replace "15 °C ± 5 °C" with "30 °C ± 3 °C"
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Explanation: This standard modifies the requirement for temperature is to reflect the weather conditions of high temperature.

6.1	Classification	Bare-element water heaters are not allowed.
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Explanation: Malaysia have irregular water conductivity.

6.2	Classification	Replaced "IPX1" with "IP25"
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Explanation: The addition has been made because majority of Malaysian bathrooms are of single cubicle.

7.103	Marking and instructions	Additional Warning label required
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Explanation: The additional has been made to counter probable installation fault.

7.104	Marking and instructions	Additional recommendation required
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Explanation: The addition has been made to ensure proper functioning of the RCD.

7.105	Marking and instructions	Additional requirements on the wiring and supply cord
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Explanation: To be in line with Energy Commission, *Guideline for the Design, Installation, Inspection, Testing, Operation and Maintenance of Water Heater Systems*

22.111 and 22.112	Construction	Additional requirement leakage current protection required
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Explanation: The addition has been made to counter probable installation fault.

The above changes have been incorporated in this standard.

This Malaysian Standard cancels and replaces, MS 1597-2-35:2010, *Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for instantaneous water heater (Third revision)*.

Compliance with a Malaysian Standard does not of itself confer immunity from legal obligations.

NOTE. MOD on the front cover indicates a modified standard i.e. a standard adapted from an International Standard with permitted technical deviations, which are clearly identified and explained. The changes in structure are permitted provided that the altered structure permits easy comparison of the content of the two standards. Modified standards also include the changes permitted under identical correspondence.