

In the event of any doubt or misunderstanding arising from this translation, the standard in Thai will be held to be authoritative.

Unofficial Translation
TIS 1039-2547 (2004)
Thai Industrial Standard
for
Electric rice cookers : Safety requirements

1.Scope

This standard specifies the safety requirements of electric rice cookers for household and similar purposes, their **rated voltage** being not more than 250 V, their rated capacity not more than 10 l.

Electric rice cookers not intended for normal household use, but which nevertheless may be a source of danger to the public, such as electric rice cookers intended to be used by laymen in shops, in light industry and on farms, are within the scope of this standard.

As far as is practicable, this standard deals with the common hazards presented by electric rice cookers that are encountered by all persons in and around the home. However, in general, it does not take into account

- the use of electric rice cookers by young children or infirm persons without supervision;
- playing with electric rice cookers the by young children

NOTE 101 *Attention is drawn to the fact that*

- *for electric rice cookers intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;*
- *additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour and similar authorities.*

NOTE 102 *This standard does not apply to*

- *electric rice cookers intended exclusively for industrial purposes;*

- *electric rice cookers intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas);*
- *electric rice cookers for high-frequency heating*

2. Normative references

This clause of Safety of household electrical appliance : General requirements TIS 1375 clause 2. is applicable.

3. Definitions

This clause of TIS 1375 clause 3. is applicable except as follows.

3.1.9 *Replacement:*

normal operation

Operation of the electric rice cookers when their containers filled with the maximum quantity of water and rice specified by the manufacturer in the instructions and its lid closed (if any)

3.101 **rated capacity**

Capacity assigned to the electric rice cooker by the manufacturer

3.102 **Electric rice cookers**

Appliances for changing electrical energy to thermal energy for cooking rice automatically and may maintain the rice temperature at a certain level.

4. General requirement

This clause of TIS 1375 clause 4. is applicable.

5. General conditions for the tests

This clause of TIS 1375 clause 5. is applicable .

6. Classification

Electric rice cookers shall be one of the following classes with respect to protection against electric shock.

- class 0I
- class I
- class II

7. Marking and instructions

This clause of TIS 1375 clause 7. is applicable except as follows.

7.1 Addition:

- Rated capacities in cubic decimeter or litre.

There shall have a level mark or other symbol to indicate level of rated capacities. The mark or symbol shall be visible when the electric rice cooker is being filled with the water.

7.12 Addition:

The instruction for electric rice cooker through a lid aperture situated below the handle shall include the substance of the following :

- warning : Position the lid so that steam is directed away from the handle

NOTE 101 No warning if the lid can be closed in a position that the steam is away from the handle.

- warning : Do not removing the lid while the water is boiling.

The instructions for electric rice cooker indicate that do not immerse in the water.

8. Protection against access to live parts

This clause of TIS 1375 clause 8. is applicable .

9. Starting of motor-operated appliances

This clause of TIS 1375 clause 9. is not applicable.

10. Power input and current

This clause of TIS 1375 clause 10. is applicable.

11. Heating

This clause of TIS 1375 clause 11. is applicable except as follows.

11.2 *Addition:*

Electric rice cooker are tested away from the walls of the test corner.

11.4 *Addition:*

If the temperature rise limits are exceeded in the electric rice cooker incorporating motors, transformers or **electronic circuits**, and if the power input is lower than the **rated power input**, the test is repeated with the electric rice cooker supplied at 1,06 times the **rated voltage**.

11.6 *Addition:*

Electric rice cooker having motors are operated as **heating appliances**.

11.7 *Replacement:*

Electric rice cooker are operated in normal operation, the test is terminated, 15 min after the thermal control has operated for the first time.

11.8 *Addition:*

When an electric rice cooker connector incorporates a **thermostat**, the temperature rise limit for the pins of the inlet does not apply.

The temperature rise limits of motors, transformers and components of **electronic circuits**, including parts directly influenced by them, may be exceeded when the electric rice cooker is operated at 1,15 times **rated power input**.

12. Void

13. Leakage current and electric strength at operating temperature

This clause of TIS 1375 clause 13. is applicable.

14. Transient overvoltages

This clause of TIS 1375 clause 14. is applicable.

15. Moisture resistance

This clause of TIS 1375 clause 15. is applicable except as follows.

15.2 Addition:

The test is only carried out with the electric rice cooker connector in position.

In case of doubt, the spillage test is carried out with the electric rice cooker deviating from the normal position of use by an angle not exceeding 5°.

16. Leakage current and electric strength at operating temperature

This clause of TIS 1375 clause 16. is applicable.

17. Overload protection of transformers and associated circuits

This clause of TIS 1375 clause 17. is applicable.

18. Endurance

This clause of TIS 1375 clause 18. is not applicable.

19. Abnormal operation

This clause of TIS 1375 clause 19. is applicable except as follows.

19.2 Addition:

Electric rice cookers are placed as near as possible to the walls of the test corner. They are tested empty with lids open or closed whichever is more unfavorable.

20. Stability and mechanical hazards

This clause of TIS 1375 clause 20. is applicable.

21. Mechanical strength

This clause of TIS 1375 clause 21. is applicable .

22. Construction

This clause of TIS 1375 clause 22. is applicable except as follows.

22.6 *Addition:*

Drain holes shall be at least 5 mm in diameter or 20 mm² in area with a width of at least 3 mm.

Compliance is also checked by inspection and measurement.

23. Internal wiring

This clause of TIS 1375 clause 23. is applicable.

24. Components

This clause of TIS 1375 clause 24. is applicable except as follows.

24.1.5 *Addition:*

For electric rice cooker couplers incorporating **thermostats, thermal cut-outs** or fuses in the connectors, IEC 60320-1 is applicable except that

- the earthing contact of the connector is allowed to be accessible, provided that this contact is not likely to be gripped during insertion or withdrawal of the connector;
- the temperature required for the test of Clause 18 is that measured on the pins of the electric rice cooker inlet during the test of Clause 11 of this standard;
- the breaking-capacity test of Clause 19 is carried out using the inlet of the electric rice cooker;

- the temperature rise of current-carrying parts specified in Clause 21 is not determined,

NOTE 101 Thermal controls are not allowed in connectors complying with the standard sheets of IEC 60320-1.

25. Supply connection and external flexible cords

This clause of TIS 1375 clause 25. is applicable except as follows.

25.1 Addition:

Electric rice cookers incorporating an electric rice cooker inlet, other than those standardized in IEC 60320-1, shall be supplied with a cord set.

25.8 Addition:

Electric rice cookers having a **rated current** up to 10 A may incorporate a **supply cord** having a nominal cross-sectional area of 0,75 mm², if the length is less than 2 m.

26. Terminals for external conductors

This clause of TIS 1375 clause 26. is applicable.

27. Provision for earthing

This clause of TIS 1375 clause 27. is applicable.

28. Screws and connections

This clause of TIS 1375 clause 28. is applicable.

29. Clearances, creepage distances and solid insulation

This clause of TIS 1375 clause 29. is applicable except as follows.

29.2 Addition:

The microenvironment is pollution degree 3 if the insulation can be polluted by condensation from steam produced during normal use of the electric rice cooker.

30. Resistance to heat and fire

This clause of TIS 1375 clause 30. is applicable except as follows.

30.1 *Addition:*

For **electric rice cookers**, the temperature rises occurring during the tests of 19.4, 19.5 and 19.101 are not taken into account.

30.2 *Addition:*

For **electric rice cookers** intended to maintain liquid or food at a particular temperature, 30.2.3 is applicable. For other appliances, 30.2.2 is applicable.

31. Resistance to rusting

This clause of TIS 1375 clause 31. is applicable.

32. Radiation, toxicity and similar hazards

This clause of TIS 1375 clause 32. is applicable.

Annexes

The annexes of TIS 1375 are applicable .