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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 40876-2021

**Minimum allowable values of energy efficiency and energy
efficiency grades for commercial induction cookers**

商用电磁灶能效限定值及能效等级

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Foreword

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GB 40876-2021 Minimum allowable values of energy efficiency and energy efficiency grades for commercial induction cookers

Minimum allowable values of energy efficiency and energy efficiency grades for commercial induction cookers 1 Scope

This document specifies the energy efficiency grades and technical requirements, test and calculation methods, and the implementation of standards for commercial induction cookers (hereinafter referred to as "induction cookers"). This document applies to induction cookers with single or multiple heating units, where the rated power of a single heating unit shall not exceed 35 kW and the rated voltage shall not exceed 450 V. This document does not apply to household induction cookers, induction cookers intended to be used under special environmental conditions (such as corrosive environments or environments prone to explosions), outdoor induction cookers, etc.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. For dated references, only the version corresponding to that date is applicable to this document; for undated references, the latest version (including all amendments) is applicable to this document.

GB 4706.52, Household and similar electrical appliances - Safety - Particular requirements for commercial electric cooking ranges ovens hobs and hob elements

3 Terms and definitions

Terms and definitions determined by GB 4706.52, and the following ones are applicable to this document.

Appendix B

(Normative) Test method of thermal efficiency The test method of thermal efficiency is as follows:

- a) Under the test conditions specified in 6.1, place the induction cooker at the laboratory ambient temperature for at least 2 h;
- b) For the non-integrated flat stove, a standard pot in accordance with A.1 and a standard lid in accordance with A.2 can be used for testing. The standard pot shall be a matching port of the smallest specification to cover the heating area; the mass of the pot m_2 , and the mass of the lid m_3 shall be measured;
- c) For the non-integrated concave stove, the manufacturer's standard pot and the standard lid of A.3 can be used for testing. The test pot shall be a matching pot of the smallest specification to cover the heating area; the mass of the pot m_2 , and the mass of the lid m_3 shall be measured;
- d) For the integrated stove, use the manufacturer's standard pot and the standard lid of A.3 for testing; the mass of the pot m_2 and the mass of the lid m_3 shall be measured;
- e) Fill the pot with 70% of its volume of water; record the mass as m_1 ; the water temperature is $15\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$;
- f) Place the matching pot with water in the center of the product heating unit; cover it;
- g) Put the temperature measuring probe into the center of the pot from the lid hole; when the measuring point is 10 mm away from the pot bottom, read the reading t_1 of the temperature measuring instrument;
- h) Start the induction cooker and quickly adjust it to the maximum rated power;

--- The End - - -