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

GB 12021.6-2017

**Minimum allowable values of energy efficiency and energy
efficiency grades for electric rice cookers**

(English Translation)

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Foreword

This Standard was drafted in accordance with the rules given in GB/T

1.1-2009.

This Standard replaces GB 12021.6-2008 Minimum allowable values of energy efficiency and energy efficiency grades for automatic electric rice cookers. Compared with GB 12021.6-2008, the main technical changes are as follows.

- added the product of which the heating method is electromagnetic induction heating in the scope;
- deleted the definition and requirements for "energy saving evaluation value";
- deleted sub-clause 4.1 in the previous edition (basic requirements);
- merged the original two power segments of 600W ~ 1000W product as one power segment (see Table 1);
- improved the indicators of energy efficiency, thermal insulation and standby power (see Table 1);
- provided a certain degree of compensation to electromagnetic induction

heating and energy efficiency of non-metallic pot products in thermal efficiency calculation formula (see 4.2);

- only retained the contents of 6.2.2 in the previous edition in the inspection rules; deleted the rest;
- changed the measuring method for the maximum temperature in test methods (see A.2.1 of Annex A).

This Standard was proposed by Division of Resource Conservation and Environmental Protection of National Development and Reform Commission, Department of Energy and Comprehensive Utilization of Ministry of Industry and Information Technology.

This Standard shall be under the jurisdiction of National Technical Committee on Energy Foundation and Management of Standardization Administration of China (SAC/TC 20).

The drafting organizations of this Standard. China Institute of Standardization, Guangdong Midea Electric Appliances Manufacturing Company, Zhejiang Supor Appliance Manufacturing Co., Ltd., Guangdong Tonze Electric Appliance Co., Ltd., China Household Electrical Appliances Association, Minimum allowable values of energy efficiency and energy efficiency grades for electric rice cookers

1 Scope

This Standard specifies the energy efficiency grades, warm-keeping energy consumption, standby power, minimum allowable values of energy efficiency, energy efficiency test method and inspection rules for electric rice cookers.

This Standard is applicable to electric rice cookers working under atmospheric environment, which take electric components or electromagnetic induction for heating, of which the rated power is not greater than 2000 W.

2 Normative references

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.

GB 4706.1, Safety of household and similar electrical appliances - General requirements

GB 4706.19, Household and similar electrical appliances - Safety - Particular requirements for heating liquids

QB/T 4099, Electric cooker and similar appliances

3 Terms and definitions

For the purposes of this document, the following terms and definitions defined in GB 4706.1, GB 4706.19 and QB/T 4099.

3.1 heat efficiency for electric rice cookers

the ratio of effective output energy to input energy of electric rice cooker

3.2 standby power

the power when the product is connected to power supply and is in the waiting state (electric heating element or induction coil is not heated), in watts

Annex A

(Normative)

Test methods

A.1 Test conditions

A.1.1 Voltage

The efficiency test of electric rice cooker shall be carried out under rated voltage of 220 (1±1%)V, rated frequency of 50 (1±1%)Hz.

A.1.2 Test environment

The test environment shall meet the following conditions.

- a) atmospheric pressure. 86 kPa ~ 106 kPa;
- b) ambient temperature. $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$, and the test room having no air flow or thermal radiation;
- c) relative humidity. 45% ~ 75%.

A.1.3 Measuring instruments

The measuring instruments shall meet the following requirements.

- a) the accuracy of voltage meter, power meter, electric energy meter shall not be less than $\pm 0.5\%$;
- b) the instrument resolution used to measure temperature is 0.1°C ; the accuracy of temperature measuring meter shall not be less than $\pm 0.5\%$;
- c) when the weighing apparatus is at full scale, the relative error shall not exceed $\pm 0.1\%$ and the minimum display (scale) value is 1g;
- d) the accuracy of the timer is $\pm 2 \text{ s/h}$;
- e) thermocouple shall use thin wire thermocouple of which the diameter is not greater than 0.3 mm.

A.1.4 Water

The test shall use tap water.

A.1.5 Initial conditions for test

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