



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

GB/T 28219-2018

**General Technology Requirements For Intelligent Household
Appliances**

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Foreword

This Standard is drafted in accordance with stipulations in GB/T 1.1-2009.

This Standard serves as a replacement of GB/T 28219-2011 General Rules of Intelligentization Technology for Intelligent Household Appliances. In comparison with GB/T 28219-2011, there are several main technical changes as follows.

---The definition of the terms of intelligent technology and intelligent household appliances is modified (please refer to 3.6, 3.8; 3.3 and 3.1 in Version 2011);

---The terms and relevant definitions of intelligent features (3.2), self-learning (3.2.1), self-adaptation (3.2.2), self-coordination (3.2.3), self-diagnose (3.2.4), self-interference (3.2.5), self-organization (3.2.6), self-correction (3.2.7), fuzzy control (3.3.1), neural network control (3.3.2), expert control (3.3.3), intelligent control system structure (3.4), feedforward structure (3.4.1), feedback structure (3.4.2), distributed structure (3.4.3), hierarchical structure (3.4.4), self-subject (3.4.5) and multi-subject structure (3.4.6) are deleted;

---The terms of intelligence (3.1), perception (3.2), decision making (3.3), implement (3.4), studying (3.5), intelligent ability (3.7), intelligent household appliances system (3.9), intelligent home (3.10), component (3.11), service platform (3.12), interconnection and interoperability (3.13), sensitive data (3.14)

and intelligent index (3.15) are added;

---The content in Chapter 4 "Detection and Evaluation" is deleted; the title of this chapter is modified into "Requirements";

---The requirements of intelligent household appliances, intelligent household appliances system and intelligent home in electrical appliance safety are added (please refer to 4.1.1);

---The requirements of intelligent household appliances, intelligent household appliances system and intelligent home in information security are added (please refer to 4.1.2);

---The requirements of intelligent household appliances, intelligent household appliances system and intelligent home in electromagnetic compatibility are added (please refer to 4.1.3);

---The requirements of intelligent household appliances, intelligent household appliances system and intelligent home in interconnection and interoperability are added (please refer to 4.2);

---The requirements of intelligent household appliances, intelligent household appliances system and intelligent home in overall layout are added (please

Introduction

Intelligent household appliances, intelligent household appliances system and intelligent home shall be able to bring new feelings and experience to users. This kind of new feelings and experience shall be impossible or unattainable when users are using non-intelligent products.

Intelligent household appliances, intelligent household appliances system and intelligent home shall enable users realize certain goals with less worries, time, energy and cost, or replace human beings to accomplish certain difficult or impossible missions.

In consideration of the industrial development stage, requirements and corresponding evaluation methods and guidelines are proposed merely from several aspects of

intelligent household appliances, intelligent household appliances system and intelligent home. These aspects include. security, interconnection/interoperability, overall layout, intelligent ability, intelligent functional effect, designation and description, etc.

Likewise, in consideration of the industrial development stage, requirements and corresponding evaluation methods and guidelines are proposed merely from two aspects of the degree of intelligence of intelligent household appliances, intelligent household appliances system and intelligent home. intelligent ability and intelligent functional effect.

The requirements and evaluation of intelligent ability are centralized in four characteristics, namely, perception, decision making, implement and studying. The requirements and evaluation of intelligent functional effect are centralized in the support and management of the demands from three aspects, namely, users' demands, household demands and manufacturers' demands.

The requirement of supporting and managing users' demands is proposed under the object of human beings' feelings and experience.

The requirement of supporting and managing household demands is proposed under the object of residential environment and indoor facilities. However, the effect of supporting and managing household appliances' demands is ultimately reflected in human beings' feelings and experience.

The requirement of supporting and managing manufacturers' demands is proposed under the object of manufacturers. Its objective is to reflect the improvement that manufacturers could obtain in the supply of products, services and operation to the market and users through the application of intelligent technology.

Likewise, in consideration of the industrial development stage, within the functional scope of supporting and managing the listed demands for intelligent household

General Technology Requirements
for Intelligent Household Appliances

1 Scope

This Standard specifies the terms, definitions, general technology requirements and evaluation methods and guidelines of intelligent household appliances, intelligent household appliances system and intelligent home for household and similar purposes.

This Standard is applicable to the design, integration, identification and evaluation of intelligent household appliances, intelligent household appliances system and intelligent home for household and similar purposes.

Intelligent electrical appliances that do not aim at general household application, but could still constitute dangers to the public, or shall be applied under similar working environment and conditions, are also within the scope of this Standard. For instance, intelligent electrical appliances that are about to be operated by unprofessional staff in stores, the light industry and farmlands.

NOTE. products that are applicable to this Standard also include.

- Intelligent service robot for household and similar purposes;
- Wearable intelligent equipment for household and similar purposes;
- Household electrical appliances that apply network technology, etc.

2 Normative References

The following documents are indispensable to the application of this Standard. In terms of references with a specified date, only versions with a specified date are applicable to this Standard. The latest version (including all the modifications) of references without a specified date is also applicable to this Standard.

GB/T 4706 (all the parts) Safety of Household and Similar Electrical Appliances

GB/T 5296.2 Instructions for Use of Products of Consumer Interest - Part 2.

Instructions for Use of Household and Similar Electrical Appliances

3 Terms and Definitions

The following terms and definitions are applicable to this document.

Intelligent index refers to an expression and measurement of the degree of intelligence