

ICS 27.015; 29.120.01
CCS K 60



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

GB/T 44660-2024

**Methodology for determining the energy efficiency class of
electrical accessories**

电器附件能效等级的测定方法
(English Translation)

Issued on: September 29, 2024

Implemented on: April 1, 2025

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is equivalent to IEC 63172:2020 "Electrical accessories - Method for determination of energy efficiency grades of electrical accessories".

The following minimal editorial changes were made to this document.

--- In order to coordinate with the existing standards, the name of the standard is changed to "Determination method of energy efficiency grade of electrical accessories";

--- Changed the expression of energy efficiency grades (see Chapter 5) to make it consistent with the energy efficiency classification in my country's Energy Efficiency Labeling Management Measures.

To keep consistent with the requirements of the People's Republic of China, adapt to the situation in my country and improve operability;

--- Changed the position of power units in Table 5 for easier reading.

Introduction

By reducing the energy consumption of products, the energy efficiency of homes and buildings is continuously improved. For example, switching from traditional incandescent lighting to LED lighting.

Specific electrical systems and accessories, such as home and building electronic systems

(HBES)/building automation and control systems (BACS), single Unique sensors, actuators, dimmers and load shedding equipment (LSE) can facilitate additional energy savings.

Additional savings can be achieved by managing and monitoring energy usage based on time of use, occupancy, grid input and demand.

HBES/BACS helps save more energy than the energy consumed to perform the task.

It is important that, for a given function, it is necessary to optimize its energy consumption.

For devices with more functions (e.g. multi-channel switch actuators, control boxes, etc.), this document provides a method for the energy efficiency rating of an accessory is determined by the consumption of each function and its percentage of use. Its purpose is to enable system designers to take into account the user's Additional functionality is increasingly required to determine the most efficient system.

Method for determining energy efficiency rating of electrical accessories

1 Scope

This document provides a method for determining the energy efficiency level of electrical accessories (hereinafter referred to as "accessories"), so that system designers can consider Select the most efficient components for electrical installations, with all functions considered.

Note: Functions such as wireless communication, network connection, timing, energy monitoring.

The approach is based on energy consumption and takes into account all functions of the attachment.

The determination of energy efficiency levels helps to reduce the overall energy consumption of electrical installations.

2 Normative references

This document has no normative references.

3 Terms and definitions

The following terms and definitions apply to this document.

The terminology databases used for standardization maintained by ISO and IEC are located at.

OFF mode

A directly controllable electrical device in which the associated electrical load is in a stopped state and can be activated by a deliberate action of the user on the accessory.

Device accessory mode.

Note: In this mode, the accessories do not consume energy.

Standby mode

The related electrical load is in a stopped state and can be activated by intentional action of the user or system on the accessory.

The electrical accessory mode is controlled by the user.

Note 1: In this mode, the accessory needs to consume energy to achieve this function.

NOTE 2 This mode includes interaction via the display, regardless of the state of the electrical load.

Working mode ON mode

Directly controllable electrical appliances where the associated electrical load is activated and can be deactivated by intentional action of the user or system on the accessory

Attachment mode.

Note 1: In this mode, accessories will consume energy.

Note 2: In this mode, the energy consumption is greater than that in standby mode.

Control mode an accessory mode that cannot directly control the load, but can generate control signals internally or receive external control signals through wired or wireless communication.

The control signal performs its function and causes the load state to change after processing.