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

GB/T 32483.1-2025

Replacing GB/T 32483.1-2016

**Energy performance of controlgear for electric light sources - Part 1: Controlgear
for fluorescent lamps - Method of measurement to determine the total input
power of controlgear circuits and the efficiency of the controlgear**

光源控制装置的效率要求 第1部分：荧光灯控制装置 控制装置线路总输入功率和
控制装置效率的测量方法

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 1 of GB/T 32483 "Efficiency Requirements for Light Source Control Devices". GB/T 32483 has been published with the following...

part.

---Part 1: Measurement methods for total input power and efficiency of fluorescent lamp control devices;

---Part 2: Methods for measuring the efficiency of discharge lamp (excluding fluorescent lamp) control devices;

---Part 3: Measurement methods for the efficiency of control devices for halogen tungsten lamps and LED light sources.

This document replaces GB/T 32483.1-2016 "Efficiency requirements for lamp control devices - Part 1: Control devices for fluorescent lamps".

The measurement method for total input power and control device efficiency of circuit is compared with GB/T 32483.1-2016, except for structural adjustments and editorial changes.

Aside from the modifications, the main technical changes are as follows.

- The scope of application has been changed (see Chapter 1, Chapter 1 of the 2016 edition);
- Some terminology definitions have been changed (see Chapter 3, Chapter 3 of the 2016 edition);
- The general requirements for the applicability of this document have been removed (see section 4.1 of the 2016 edition);
- The requirement for measurement accuracy has been removed (see 4.5 in the 2016 edition);
- Added general precautions for the experiment (see 4.4);
- The test voltage and frequency requirements have been changed (see 4.8, 4.9 in the 2016 version).
- Added requirements for sensor and network connectivity (see 4.9);
- The method for measuring standby power has been changed (see 5.7, 2016 version 5.7);
- Added a method for measuring network standby power (see 5.8);
- Added power measurement report (see 5.9);
- Added a description of luminaire distance related to luminaire length (see B.2.3).

This document modifies and adopts IEC 62442-1:2022 "Efficiency requirements for lamp control devices - Part 1: Control devices for fluorescent lamps".

A method for measuring the total input power of the circuit and the efficiency of the control device.

Compared with IEC 62442-1:2022, this document has undergone the following structural adjustments.

- Appendix A corresponds to Appendix B in IEC 62442-1:2022;
- Appendix B corresponds to Appendix A in IEC 62442-1:2022.

The technical differences between this document and IEC 62442-1:2022, and the reasons therefor, are as follows.

- The scope of application has been changed to suit my country's national conditions (see Chapter 1, Chapter 1 of IEC 62442-1:2022);
- The introductory text for "Terms and Definitions" has been revised to suit my country's national conditions (see Chapter 3, Chapter 3 of IEC 62442-1:2022);
- The test voltage and frequency requirements have been modified to suit my country's

national conditions (see 4.8, IEC 62442-1:2022 4.8);

---IEC 63103 has been replaced with the normatively referenced GB/T 39018 to facilitate inter-standard coherence (see Chapters 4 and 5).

Chapters 4 and 5 of IEC 62442-1:2022.

The following editorial changes have been made to this document.

---To align with existing standards, the standard name has been changed to "Efficiency Requirements for Light Source Control Devices Part 1: Fluorescent Lamp Control Devices" "Methods for Measuring Total Input Power and Efficiency of Control Device Circuits";

---Informative references in the notes have been modified (see 3.8, 4.9).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Light Industry Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Lighting Appliances (SAC/TC224).

Introduction

GB/T 32483, "Efficiency Requirements for Light Source Control Devices," aims to standardize the measurement methods for the efficiency of light source control devices and support light source control...

The improved efficiency of the device effectively reduces unnecessary energy consumption. GB/T 32483 specifies different types of light source control devices.

The standardization process consists of the following three parts.

---Part 1: Measurement Methods for Total Input Power and Efficiency of Fluorescent Lamp Control Device Circuits. The purpose is to...

A standardized method for measuring the efficiency of control devices for fluorescent lamps;

---Part 2: Methods for measuring the efficiency of discharge lamp (excluding fluorescent lamp) control devices. The purpose is to standardize the measurement of the efficiency of discharge lamp control devices.

Methods for measuring the efficiency of control devices for various types of external discharge lamps;

---Part 3: Measurement Methods for the Efficiency of Halogen Tungsten Lamp and LED Light Source Control Devices. The purpose is to standardize the control device efficiency of halogen tungsten lamps and LED light sources.

Methods for measuring the efficiency of control devices for LED modules.

Efficiency requirements for light source control devices, Part 1.

Fluorescent lamp control device control device circuit Methods for measuring input power and control device efficiency

1 Scope

This document describes a method for measuring and calculating the total input power of the control device-lamp circuit when it is working in conjunction with the corresponding fluorescent lamp. It also describes...

The method for calculating the efficiency of a light source control device is described.

This document applies only to DC power supplies of 1000V and below and/or AC power supplies of 1000V and below 50Hz, controlled by a single device and the control device for the lamps - the lamp circuit.

Note: This does not include the requirement to test individual control devices during the production process.

This document specifies the method for measuring the total input power of control devices used for domestic and general commercial applications when operating with the following fluorescent lamps.

Methods for calculating the efficiency of methods and control devices.

---Double-ended fluorescent lamp (IEC 60081);

---Single-ended fluorescent lamp (IEC 60901);

---Other general-purpose low-pressure mercury fluorescent lamps.

This document does not apply to.

---Integrated lighting control device;

---Controllable electromagnetic control device.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 14044-2008 Performance requirements for ballasts for tubular fluorescent lamps (IEC