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

GB/T 19510.202-2023

Replacing GB 19510.3-2009

**Controlgear for electric light sources - Part 2-2: Particular
requirements for d. c. or a. c. supplied electronic step-down
convertors for filament lamps**

(English Translation)

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Reference

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 2-2 of GB/T 19510 "Light Source Control Device": GB/T 19510 has published the following parts:

- Part 1: General requirements and safety requirements;
- Part 2-1: Special requirements for starting devices (except glow starters);
- Part 2-2: Special requirements for DC/AC electronic buck converters for tungsten lamps;
- Part 2-3: Special requirements for AC and/or DC electronic control devices for fluorescent lamps;
- Part 2-7: Special requirements for electronic control devices powered by safety service power supply (ESSS) for emergency lighting (self-contained);
- Part 2-8: Special requirements for ballasts for fluorescent lamps;
- Part 2-9: Special requirements for electromagnetic control devices for discharge lamps (except fluorescent lamps);
- Part 2-10: Special requirements for electronic inverters and frequency converters for high-frequency cold start tubular discharge lamps (neon lamps);
- Part 2-11: Special requirements for miscellaneous electronic circuits used with lamps;
- Part 2-12: Special requirements for DC or AC electronic ballasts for discharge lamps (except fluorescent lamps);
- Part 2-13: Special requirements for DC or AC electronic control devices for LED modules:

This document replaces GB 19510.3-2009 "Lamp control devices - Part 3: DC/AC electronic step-down converters for tungsten lamps" "Special Requirements", compared with GB 19510.3-2009, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- Changed the output DC voltage value to 120V ripple-free DC voltage (see Chapter 1, Chapter 1 of GB 19510.3-2009);

- Deleted some terms and definitions (see Chapter 3 of GB 19510.3-2009);
- Added "Requirements that other types of converters should comply with" (see Chapter 4);
- Changed the classification of protective measures against electric shock (see Chapter 6, Chapter 6 of GB 19510.3-2009);
- Added the content of mandatory signs s) and t) (see 7.1);
- Changed the requirements for measures to prevent accidental contact with live parts (see Chapter 8, Chapter 8 of GB 19510.3-2009);
- Changed the requirements for moisture resistance and insulation (see Chapter 11, Chapter 11 of GB 19510.3-2009);
- Changed the requirements for electrical strength (see Chapter 12, Chapter 12 of GB 19510.3-2009);
- Changed the requirements for creepage distance and clearance (see Chapter 17, Chapter 17 of GB 19510.3-2009);
- Changed the special supplementary requirements for safety extra-low voltage DC or AC electronic step-down converters for tungsten lamps (see Appendix I, Appendix I of GB 19510.3-2009):

This document is modified to adopt IEC 61347-2-2:2011 "Lamp control devices Part 2-2: DC/AC electronic voltage reduction for tungsten lamps" Special Requirements for Converters":

The technical differences between this document and IEC 61347-2-2:2011 and their reasons are as follows:

- Replaced IEC 61347-1 with normatively cited GB/T 19510.1-2023 for ease of use:

The following editorial changes have been made to this document:

- In order to coordinate with the existing standards, the name of the standard is changed to "Light Source Control Devices Part 2-2: DC/AC Electronic Reducers for Tungsten Lamps" Special Requirements for Voltage Converters";
- Replaced IEC 60449 with the informative reference GB/T 18379-2001:

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

Introduction

With the development of light source control device technology, the safety specifications of the previous version of the light source control device can no longer be adapted to meet the

current light source control requirements:

Technical requirements and product safety requirements of the device: Safety requirements ensure that electrical equipment is correctly installed, maintained and used in the manner intended Reduce harm to people, livestock or property: GB/T 19510 "Light Source Control Device" updates the technical and safety requirements to the regulations:

It is of great significance to standardize light source control devices, reduce product safety risks, improve product quality, and enhance the competitiveness of our products:

GB/T 19510 aims to standardize light source control devices and is intended to consist of the following parts:

---Part 1: General requirements and safety requirements: The purpose is to standardize the general requirements for control devices and their safety requirements:

---Part 2-1: Special requirements for starting devices (except glow starters): The purpose is to standardize starting devices (except glow starters) (external) special requirements for safety requirements:

---Part 2-2: Special requirements for DC/AC electronic step-down converters for tungsten lamps: The purpose is to standardize the direct use of tungsten filament lamps Special requirements for safety requirements of current/AC electronic buck converters:

---Part 2-3: Special requirements for AC and/or DC electronic control devices for fluorescent lamps: The purpose is to standardize AC for fluorescent lamps and/or special requirements for safety requirements of DC electronic control devices:

---Part 2-7: Special requirements for electronic control devices powered by safety service power supplies (ESSS) for emergency lighting (self-contained): Purpose Special requirements for regulating the safety requirements of electronic control devices powered by safety service power supplies (ESSS) for emergency lighting (self-contained):

---Part 2-8: Special requirements for ballasts for fluorescent lamps: The purpose is to standardize special safety requirements for ballasts for fluorescent lamps:

Require:

---Part 2-9: Special requirements for electromagnetic control devices for discharge lamps (except fluorescent lamps): The purpose is to standardize discharge lamps (fluorescent lamps Except) special requirements for safety requirements for electromagnetic control devices:

---Part 2-10: Special requirements for electronic inverters and frequency converters for high-frequency cold start tubular discharge lamps (neon lamps): The purpose is Special requirements for regulating the safety requirements of electronic inverters and frequency converters for high-frequency cold start tubular discharge lamps (neon lamps):