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

GB/T 19510.203-2023

Replacing GB 19510.4-2009; GB 19510.5-2005; GB 19510.6-2005; GB 19510.7-2005

**Controlgear for electric light sources - Part 2-3: Particular
requirements for a. c. and/or d. c. supplied electronic control
gear for fluorescent lamps**

(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 2-3 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 19510.4-2009 "Lamp control devices - Part 4: Special requirements for AC electronic ballasts for fluorescent lamps" "Requirements", GB 19510.5-2005 "Lamp control devices Part 5: Special requirements for DC electronic ballasts for general lighting", GB 19510.6-2005 "Lamp control devices Part 6: Special requirements for DC electronic ballasts for lighting in public transportation vehicles" and GB 19510.7-2005 "Lamp control devices - Part 7: Special requirements for DC electronic ballasts for aircraft lighting": this document Mainly based on GB 19510.4-2009, it integrates the content of GB 19510.5-2005, GB 19510.6-2005 and GB 19510.7-2005:

Compared with GB 19510.4-2009, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

---The scope has been changed to include electronic control devices using DC power supply, while clearly distinguishing between central power supply and non-central power supply:

Applicable standards for electronic control devices for emergency lighting: The special requirements in Appendix J are only for centrally powered emergency lighting:

Electronic control devices, requirements for non-centrally powered emergency lighting control devices are given in GB/T 19510.207-2023 (see Section 1 Chapter, Chapter 1 of GB 19510.4-2009);

- Added the terms and definitions of "DC electronic control device" (see 3.7);
- Added the content of DC power control device (see 7.2 and Chapter 14);
- Added "increased abnormal states of DC electronic control devices" (see 16.2);
- Deleted Figure 1a), added "Figure 4a) First direction test of rectification effect", "Figure 4b) Reverse direction test of rectification effect", changed Change the figure title: Figure 1b) to Figure 4c) (see Figure 4, Figure 1 of GB 19510.4-2009);
- Added "Figure I:1b) ~ Figure I:1g)" and legends (see Appendix I);

---Deleted "continuous emergency lighting", "electrical appliances for AC/DC continuous emergency lighting", "base ballast", "base lamp" and "base ballast" Definition of "calibration current of current converter" and "pre-start time" (J:2 of GB 19510.4-2009);

---Added the definition of "emergency ballast lumen coefficient" (see J:2:6);

--- Added "functional safety" (EBLF) (see J:14):

This document is modified to adopt IEC 61347-2-3:2016 "Lamp control devices - Part 2-3: AC and/or DC electronics for fluorescent lamps" Special Requirements for Control Devices":

The technical differences between this document and IEC 61347-2-3:2016 and their reasons are as follows:

---Replaced IEC 60929 with normatively cited GB/T 15144-2000 for ease of use;

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

---Replaced IEC 61347-2-7 with normatively cited GB/T 19510.207-2023 for ease of use:

The following editorial changes have been made to this document:

---In order to coordinate with existing standards, the name of the standard is changed to "Light source control device - Part 2-3: AC and/or DC power for fluorescent lamps" Special requirements for sub-control devices:

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: