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

GB/T 16895.22-2022

Replacing GB/T 16895.4-1997, GB/T 16895.22-2004

**Low-voltage electrical installations - Part 5-53: Selection and
erection of electrical equipment - Devices for protection for
safety, isolation, switching, control and monitoring**

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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.

GB/T 16895 "Low-voltage electrical installations" is divided into 5 parts, and each part is divided into several sub-parts.

--- Part 1. Basic principles, general characteristics assessment and definition;

- Part 4.Safety protection;
- Part 5.Selection and installation of electrical equipment;
- Part 6.Inspection;
- Part 7.Requirements for special installations or locations.

This document is part 5-53 of GB/T 16895 "Low Voltage Electrical Installations". Part 5 of GB/T 16895 has issued the following

subsection.

- Building electrical installations Part 5-51.General rules for the selection and installation of electrical equipment;
- Low-voltage electrical installations Part 5-52.Selection and installation of electrical equipment and wiring systems;
- Low-voltage electrical installations Part 5-53.Selection and installation of electrical equipment for safety protection, isolation, switching, control and monitoring electrical appliances tested;
- Low-voltage electrical installations Part 5-54.Selection and installation of electrical equipment Grounding configuration and protective conductor;
- Low-voltage electrical installations Part 5-55.Selection of electrical equipment and installation of other equipment;
- Low-voltage electrical installations Part 5-56.Selection and installation of electrical equipment safety features.

This document replaces GB/T 16895.4-1997 "Electrical Installations of Buildings - Part 5.Selection and Installation of Electrical Equipment

Chapter 53.Switchgear and Controlgear" and GB/T 16895.22-2004 "Electrical installations of buildings - Part 5-53.Electrical equipment

Selection and Installation of Isolation, Switching and Control Equipment Section 534.Overvoltage Protective Appliances", and GB/T 16895.4-1997,

Compared with GB/T 16895.22-2004, the main technical changes are as follows.

- Added all normative references, terms and definitions in Chapter 530 (see 530.2 and 530.3);
- Changed all clauses except chapters 531 and 534 (see 531 and 534 of the.2004 edition);
- Increased section 537 monitoring (see Chapter 537).

This document is modified to adopt IEC 60364-5-53.2020 "Low-voltage electrical

installations - Part 5-53. Use for the selection and installation of electrical equipment
Electrical appliances for safety protection, isolation, switching, control and monitoring".

The technical differences between this document and IEC 60364-5-53:2020 and their reasons are as follows.

--- Modify the requirements of 531.2.3.4.1, according to the application situation of the Chinese market, increase the RCD whose action function is related to the power supply voltage

applicability.

The following editorial changes were made to this document.

--- Replace IEC 60947-2:2016, IEC 60947-

2:2019 includes the content of Amendment No. 1 of IEC 60947-2:2016, and the referenced content has no technical difference;

--- In order to facilitate the use of the standard, the source reference information in the terminology part of 530.3 is replaced by GB/T 18802.11-2020

IEC 61643-11:2011, the quoted content has no technical difference;

--- According to the provisions of GB/T 1.1, change the title of the clauses at the same level as 531.3.1 to a unified format, and delete the clauses of 531.3.1

title;

--- Correct the clerical error in the document, change the last paragraph of 531.2.2.3b) to a column item;

--- Delete Note 1 of 534.4.5.2;

--- Because the number of clause 536.1 is missing, the number of 536.2 is changed to 536.1, and the number of subsequent clauses is adjusted accordingly;

--- Appendix F of IEC 60364-5-53:2020 is the relevant requirements of other countries and has nothing to do with my country, so it is deleted in this document.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

GB/T 16895 (all parts) Safety protection of low-voltage electrical installations, selection, installation and inspection of electrical equipment, and special equipment

The safety requirements of the location or place play a guiding role. GB/T 16895 is proposed to consist of six parts.

--- Part 1. Basic principles, general characteristics assessment and definition. The purpose is to ensure the design, installation and inspection of low-voltage electrical installations

Establish safety rules to avoid possible dangers and risks to persons, livestock and property caused by low-voltage electrical installations in reasonable use

damage, and ensure the normal operation of electrical installations.

--- Part 4. Safety protection. Contains 4-41, 4-42, 4-43, 4-44 sub-parts, the purpose is to establish the electric shock of low-voltage electrical installations

Basic requirements for protection, thermal effect protection, overcurrent protection, voltage disturbance and electromagnetic disturbance protection.

--- Part 5. Selection and installation of electrical equipment. Contains 5-51, 5-52, 5-53, 5-54, 5-55, 5-56 subsections, the purpose is to follow

According to the basic requirements for safety protection, establish the general requirements that meet the functional requirements for the intended use of electrical devices and the requirements for external influences.

rules, as well as establishing requirements for wiring systems, isolation, switching and control equipment, grounding arrangements and protective conductors, low-voltage generating equipment and auxiliary

Requirements for the selection and installation of electrical equipment in terms of auxiliary equipment, safety facilities, and power supply systems.

--- Part 6. Inspection. The purpose is to establish the requirements for preliminary inspection and periodic inspection of electrical installations.

--- Part 7. Requirements for special installations or locations. Including 7-701, 7-702, 7-703, 7-704, 7-705, 7-706, 7-710,

Standing, there is no relevant connection.

--- Part 8. Functional aspects. Contains 8-1 subpart, the purpose is to design, install and operate the energy efficiency of the electrical installation

The evaluation of (EE) presents requirements, recommendations and methods.

The above-mentioned Parts 1, 4, 5 and 6 are general requirements and regulations (general parts), and generally apply to

Used in Part 7 (undated reference), but in special installations and places, Part 7 proposes to supplement, modify or replace GB/T 16895

Some provisions and requirements of Part 1, Part 4, Part 5 and Part 6.

This document contains electrical appliances involved in safety protection, isolation,