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

GB 16895.5-2012

Replacing GB 16895.5-2000

**Low-voltage electrical installations -- Part 4-43: Protection for
safety -- Protection against overcurrent**

低压电气装置 第4-43部分：安全防护 过电流保护

(English Translation)

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Table of Contents

Introduction

43 Overcurrent protection

430.1 Scope

430.2 Normative references

430.3 General requirements

431 The circuit according to claim 2 characterized

Protection of 431.1 line conductor

431.2 Protection of the neutral conductor

431.3 In multiphase systems breaking and then connected to the neutral conductor

432 Protection of electrical characteristics of

432.1 Both prevent the overload current and short circuit current of the protective device

432.2 Prevent electrical overload current protection

432.3 Prevent electrical short-circuit current protection

432.4 Protection of electrical characteristics

Overload protection 433

With 433.1 and overload protection of electrical conductors between

433.2 Overload protection of electrical position

433.3 Overload protection of electrical omitted

Overload protection 433.4 parallel conductors

434 Short-circuit protection

Foreword

All technical content in this section is mandatory.

GB 16895 "Buildings (low voltage) electrical apparatus" is divided into five sections.

--- Part 1. Fundamental principles, assessment of general characteristics and definitions;

--- Part 4. Safety;

--- Part 5. Selection and erection of electrical equipment;

--- Part 6. Inspection;

--- Part 7. requirements for special installations or locations.

This section is part of the 4 GB 16895.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB 16895.5-2000 "Electrical installations of buildings Part 4. Protection for safety Chapter 43. Protection against overcurrent." this section identical with IEC 60364-4-43:2008 (3rd edition) "Low-voltage electrical installations - Part 4-43. Protection for safety over current protection".

This part of IEC 60364-4-43:2008 (3rd edition) identical in technical content, but contains the following editorial changes.

- Use the decimal symbol instead of decimal symbol ", ". ", ";
- Deletion of the IEC standard "foreword";
- IEC Standard Appendix E for other countries to apply the standards of the country note, regardless of the country, by deleting this section.

This part of the reg number and IEC 60364-4-43:2008 exactly.

The main part of this change is GB 16895.5-2000.

- In the "Scope" Added information about flexible cable (see 430.1);
- Entire standard in the "phase conductor" to "line conductors";
- The IT system is not configured to require modification of the neutral injection (see 431.2.2);
- Increase the neutral conductor harmonic current overload testing requirements (see 431.2.3);
- Electrical short-circuit protection, increase closing and breaking short-circuit current capability requirements (see 432.3);
- Increased clarification of information overload protection (see 433.1)
- Overload protection does not need to expand the electrical requirements of the case (see 433.3.1);
- Omitted to allow protection of electrical overload situation, we give more examples (see 433.3.3);
- Expand unwanted electrical short-circuit protection requirements of the case (see 434.3);
- Increase the short-circuit current rating of the busbar system requirements (see 434.5.3).

Consistency correspondence between this part of international documents and normative

references of our files are as follows.

- GB 7251.2-2006 Low-voltage switchgear and control equipment Part 2. busbar trunking systems (busways) Particular requirements (IEC 60439-2:2000, IDT);
- GB 10963 (all parts), electrical accessories for household and similar circuit breakers for overcurrent protection [IEC 60898 (all section Minute)];
- GB/T 13539.2-2008 Low-voltage fuses - Part 2. Supplementary requirements for full-time personnel fuse (mainly used Industrial fuses) examples of standardized systems of fuses A to I (IEC 60269-2:2006, IDT);
- GB 13539.3-2008 Low-voltage fuses - Part 3. unskilled personnel Supplementary requirements for fuses (mainly used for household and similar fuses) examples of standardized systems of fuses A to F (IEC 60269-3:2006, IDT);
- GB 14048.2-2008 Low-voltage switchgear and control equipment Part 2. Circuit breaker (IEC 60974-2:2006, IDT);
- GB 14048.9-2008 Low-voltage switchgear and control equipment Part 6-2. Multiple function equipment (equipment) control and protection Switching devices (or equipment) (CSP) (IEC 60947-6-2. IDT);
- Part 4-41 GB 16895.21-2004 Electrical installations of buildings. Protection for safety Protection against electric shock (IEC 60364-4-41:2001, IDT);
- GB 16917 (all parts) for household and similar uses overcurrent protection for residual current operated circuit breaker (RCBO) [IEC 61009 (all parts)].

This part of the National Standardization Technical Committee of electrical building equipment (SAC/TC205) and focal points.

This section is responsible for drafting unit. electrical machines in Design and Research Institute.

43 Overcurrent protection

430.1 Scope

This section provides the overcurrent protection requirements energized conductors.

This section describes the live conductors in the event of overload (see 433) and short-circuit (see 434) How to by one or more electrical protection Automatically cut off power, but in accordance with the provisions of 436 of the overcurrent has restricted who at 433.3 (overload protection of electrical omitted) or Conditions 434.3 (short-circuit protection is omitted) as its provisions are satisfied except by. This section also includes overload protection and short circuit protection Cooperation between (see 435).

Note 1: When the fault may cause over current values with the overload value almost in line with the

provisions of 433 of the charged conductor overload protection, but also can be considered such is the fault overcurrent protection.

Note 2: The requirements of this section does not consider outside influences.

Note 3: The protection of the conductor specified in this part do not have the protection of the conductor connected devices.

Note 4: the use of plug and power outlet to connect the device to a flexible cable fixture, does not fall within the scope of this part, so do not set the overcurrent protection is compulsory.

Note 5: In this section, breaking does not mean isolation.

430.2 Normative references the following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 16895.6-2000 Electrical installations of buildings - Part 5. Selection and erection of electrical equipment - Chapter 52. Wiring systems (idt IEC 60364-5-52:1993) IEC 60269-2 Low-voltage fuses - Part 2. Supplementary requirements for full-time personnel fuse (fuse is mainly used for industrial Control) sample standardized systems of fuses A to I (Low-voltage switchgear and control gear assemblies-Part 2.

Particular requirements for busbar trunking systems (busways)) IEC 60269-3 Low-voltage fuses - Part 3. unskilled personnel Supplementary requirements for fuses (mainly used for household and class Like the use of fuses) examples of standardized systems of fuses A to F (Low-voltage fuses-Part 3. Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)

-Examples of standardized systems of fuses A to F) IEC 60269-4 Low-voltage fuses - Part 4. Supplementary requirements for protection of semiconductor devices fuse body (Low-voltage fuses-Part 4.

Supplementary requirements for fuses-links for the protection of semiconductor devices) Part 4-41 IEC 60364-4-41 low voltage electrical devices. safety Protection against electric shock (Low-voltage electrical installations-Part 4-41.

Protection for safety- Protection against electric shock) IEC 60439-2 Low-voltage switchgear and control equipment Part 2. Particular requirements for busbar trunking systems (busways) (Low-voltage switchgear and control gear assemblies-Part 2.

Particular requirements for busbar trunking systems (busways)) IEC 60947-2 Low-voltage switchgear and control equipment Part 2. Circuit Breakers

(Low-voltage switchgear and control gear-Part 2. Circuit-breakers) IEC 60947-3 Low-voltage switchgear and control equipment - Part 3. Switches, disconnectors, switch and fuse combination (Low-voltage switchgear and control gear-Part 3. Switches, disconnectors,

switch-disconnectors and fuse-combination units) IEC 60947-6-2 Low-voltage switchgear and control equipment Part 6-2. Multiple function equipment (equipment) control and protection of electrical switches (Equipment) (CPS)