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

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Replacing GB/T 10217-2011

**Design guide of the outline and structure for the electric control
equipment**

电工控制设备造型设计导则

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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 of Standardization Documents" Drafting. This document replaces GB/T 10217-2011 "Guidelines for the Design of Electrical Control Equipment",

compared with GB/T 10217-2011, except for In addition to structural adjustments and editorial changes, the main technical changes are as follows:

- The design of the equipment shape should consider the requirements for convenient operation and maintenance of the equipment after operation (see Chapter 4);
- Modified the production and processing of electroplating industries in materials and processes should meet the requirements of environmental protection standards (see 7.3,.2011 edition 6.3);
- The recommended size has been added (see 9.2);
- Modified some requirements of the general layout (see 9.3.3, 8.3.3 of the.2011 edition);
- Added the choice of cabinet material (see Appendix C);
- The main structural dimensions of the human body in Appendix A have been deleted (see Appendix A in the.2011 edition). Please note that some of the contents of this document may involve patents. The issuing agency of this document is not responsible for identifying patents. This document was proposed by the China Electrical Equipment Industry Association. This document is under the jurisdiction of the National Low-Voltage Switchgear and Control Equipment Standardization Technical Committee (SAC/TC266). Drafting organizations of this document. Tianjin Electric Research Institute Co., Ltd., Tianjin Tianchuan Electric Control Equipment Inspection Co., Ltd., CCIC Quality and Technical Inspection Testing Science Research Institute Co., Ltd., AIA Electric (Pinghu) Co., Ltd., Shanghai Najie Electric Complete Co., Ltd., Guangdong Heimer Industry Technology Co., Ltd., Shanghai Youbang Electric (Group) Co., Ltd., Baoding Product Quality Supervision and Inspection Institute, Hangzhou Power Equipment Manufacturing Company Co., Ltd. Yuhang Qunli Complete Electric Manufacturing Branch, Huaxiang Xiangneng Technology Co., Ltd., Henan Product Quality Supervision and Inspection Institute, Shanghai Huajian Switchgear Co., Ltd., Henan Zhongke Hoisting Electric Co., Ltd., Dongying Nanfang Electric Co., Ltd., State Grid Hunan Electric Power Co., Ltd. Company power supply service center (metering center). The main drafters of this document. Wang Sha, Wang Lianjie, Lou Yingchao, Wang Shuai, Zhao Li, Huang Zhongxing, Wang Guoliang, Cai Jing, Zhou Guangfang, Chen Kang, Zhuang Chuansheng, Hu Jing, Yu Miao, Chen Youlai, Xiong Dezhi. The previous releases of this document and the documents it replaced are as follows:

- First published in 1988 as GB/T 10217-1988, first revised in.2011;
- This is the second revision. Guidelines for the Modeling Design of Electrical Control Equipment

1 Scope

GB/T 10217-2021 is the Chinese national standard on design guide of the outline and structure for the electric control equipment, in the field of electrical engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 11 October 2021 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2022. Classification: ICS 29.130.20, CCS K32. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document provides the modeling design guidelines for electrical control equipment, and gives the shape, color, texture, material and technology, and table of the modeling design. Surface decoration, general layout and other information. This document is applicable to the modeling design of complete sets of electrical equipment (cabinet, screen, box, table, etc.).

2 Normative references

The content of the following documents constitutes an indispensable clause of this document through normative references in the text. Among them, dated quotations Only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to This document.

GB/T 20641-2014 General requirements for empty housings of low-voltage switchgear and control equipment GSB05-1426-2001 Paint film color standard sample card

3 Terms and definitions

There are no terms and definitions that need to be defined in this document.

4 General Design Principles

The design of electrical control equipment should be.

---Ensure the safe, stable and reliable operation of the equipment, and meet the technical requirements such as the structure, strength, protection, and applicability of the use environment of the equipment The provisions of product standards, such as. the empty shell of low-voltage switchgear and control equipment meets the requirements of GB/T 20641-2014 Require;

---Considering the requirements for convenient operation and maintenance of the equipment after operation;

- Guided by the theory of ergonomics, give full play to the best benefits of the operator;
- Reasonably select materials and processes to reflect the characteristics of industrial development and the beauty of the times;
- Consider the adaptability of the use environment and the characteristics of the overall project, and maintain the harmony and unity of style, tone and layout;
- Follow the provisions of the corresponding standards and promote the development of product standardization, serialization and generalization;
- Preferential use of cleaner production technologies, processes and equipment with high resource utilization and low pollutant production;
- Scientific use of materials, appropriate selection of materials on the premise of ensuring the safety, stability and reliable operation of the equipment, to avoid waste of resources.

5 Body

5.1 Body composition The body composition should consider.

- The proportion of the body composition gives priority to meeting the use function of the equipment, while considering the craft and aesthetic requirements, and strives to make the proportion of the body coordination;