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

GB/T 4728.1-2018

**Graphical symbols for electrical diagrams -- Part 1: General
information**

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Foreword

GB/T 4728 "Electrical sketch diagram with graphic symbols" is divided into 13 parts.

- Part 1. General requirements;
- Part 2. symbolic elements, qualified symbols and other commonly used symbols;
- Part 3. Conductors and connectors;
- Part 4. Basic passive components;
- Part 5. Semiconductor tubes and tubes;
- Part 6. Generation and conversion of electrical energy;
- Part 7. Switching, control and protection devices;
- Part 8. Measuring instruments, lamps and signal devices;
- Part 9. Telecommunications. switching and peripheral equipment;
- Part 10. Telecommunications. Transmission;
- Part 11. Floor plan of building installation;
- Part 12. Binary logic components;
- Part 13. Analog components.

This part is the first part of GB/T 4728.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 4728.1-2005 "Graphical Symbols for Electrical Sketches Part 1.

General Requirements", and GB/T 4728.1-

The main technical changes in.2005 are as follows.

--- Added normative references (see Chapter 2);

--- Deleted links, symbol queries, snapshots, consultations, how to deal with "new symbol requests" and other content (see.2005 version 1.3, 1.4, 1.5, 1.6, 2.8).

This section uses the redrafting method to modify the use of IEC 60617database "graphic symbols for diagrams" (September 1,.2016)

Print the English version).

This section has more structural adjustments than IEC 60617database. Appendix A lists this section and IEC 60617data-

The main structural differences of base.

The main technical differences between this part and IEC 60617database and their reasons are as follows.

---About the normative reference documents, this part has made technical adjustments to adapt to China's technical conditions, adjustments

The situation is reflected in Chapter 2, "Regulatory References", and the specific adjustments are as follows.

* Add reference to IEC 61346-2;

* IEC 60027 (all parts), IEC 61286, ISO 31, ISO 10646 have been removed.

--- In order to meet the needs of standard use, delete the description of the database standard, namely. link, symbol query, snapshot printing, consultation, such as

How to handle the content of the "new symbol request".

This section has made the following editorial changes.

--- Modified the standard name.

This part is proposed and managed by the National Electrical Information Structure, Documentation and Graphic Symbol Standardization Technical Committee (SAC/TC27).

This section drafted by. China Machine Productivity Promotion Center, Anhui Mingyuan Power Equipment Manufacturing Co., Ltd., Anhui Yousi Tiancheng Intelligent Technology Limited.

1 Scope

This part of GB/T 4728 specifies a general description of the graphical symbols used in electrical diagrams.

This section applies to graphical symbols for electrical sketches.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

ISO 81714-1 Product technical documentation with graphical notation rules Part 1. Basic rules (Design of graphical symbols)

Bol for use in the technical documentation of products - Part 1. Basic rules)

IEC 61082-1 Preparation of documentation for electrical technology - Part 1. Rules (Preparation of documents used in electrical technology - Part 1. Rules)

IEC 61346-2 Industrial systems, devices and equipment, and industrial product structure principles and reference code - Part 2.

Class and classification code

(Industrial systems, installations and equipment and industrial products - Structuring principles and reference designations - Part 2. Classification of objects and codes for classes)

IEC / T R 61352 integrated circuit memory and symbols (Mnemonics and symbols for integrated circuits)

IEC / T R 61734 Binary logic components and analog component symbols (Application of symbols for binary logic

and analogue elements)

IEC 81714-2 Product Technical Documentation with Graphical Symbols Representation Rules Part 2. Graphical Symbols (including diagrams in the Base Symbol Library)

Computer electronic file format specification and its exchange requirements (Design of graphical symbols for use in the technical

documentation of products - Part 2. Specification for graphical symbols in a computer sensible form, including graphical symbols for a reference library, and requirements for their interchange)

3.1 Introduction

GB/T 4728 is a collection of data describing graphical symbols and their attributes.

3.2 Language

All symbol information in GB/T 4728 is expressed in both Chinese and English.

4.1 Standard structure

GB/T 4728 contains approximately 1900 graphical symbols. It specifies the international "illustrative language" for electrical sketching. Similar to words