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

GB/T 18233.5-2018

**Information technology -- Generic cabling for customer
premises -- Part 5: Data centres**

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Foreword

GB/T 18233 "General cable for information technology users' buildings" is divided into the following parts.

- Part 1. General requirements;
- Part 2. Office space;
- Part 3. Industrial buildings;
- Part 4. Residential;
- Part 5. Data Center;
- Part 6. Distributed building facilities.

This part is the fifth part of GB/T 18233.

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

This section uses the translation method equivalent to ISO /IEC 11801-5..2017 "Information Technology User Buildings General Cables Part 5

Points. Data Center.

This standard incorporates the contents of ISO /IEC 11801-5.2017/COR1.2018 and is used in the margins of the outer side of its corresponding clause.

The vertical double line (||) is marked.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

--- GB/T 34961.2-2017 Information technology user building group cabling implementation and operation Part 2. Planning and installation

(ISO /IEC 14763-2.2012, IDT)

Introduction

Cable installations are as important as other infrastructures such as water supply and energy supply, and disruption of cabling system services can also have serious implications. by

Poor service due to lack of planning, improper use of components, improper installation, poor management, or inadequate support may be given to users.

Bring business losses.

This part of GB/T 18233 describes general cabling in data center equipment rooms and access data centers, or other types of buildings.

General cabling within the data center.

In addition, it also includes.

---The cabling of the office space specified in ISO /IEC 11801-2;

--- Cables for industrial sites as specified in ISO /IEC 11801-3.

ISO /IEC 11801-6 specifies cabling for distributed building facilities and also covers all of the above locations and conditions.

Figure 1 shows the relationship between the standards for cabling and information technology reports developed by ISO /IEC JTC1/SC25. which is

Standards for cabling design, installation, operation, and management in ISO /IEC 11801, and test standards for installed cabling.

Figure 1 Relationship between common cabling standards established by ISO /IEC JTC1/SC25

The general cabling specified in this section will provide the following services to users.

- a) provide users with a separate cabling system that supports a wide range of applications within the installation and operating environment;
- b) Provide users with flexible cabling solutions that make the modifications simple and economical;
- c) supply chain of multi-provider cabling components in an open market environment;

In addition to this, this section provides.

- d) provide guidance to industry professionals to allow installation of cabling prior to obtaining specific requirements, such as initial plans for construction or renovation,

And when determining future deployment requirements.

e) Provide guidance to the cabling system industry and standards organizations supporting existing products as standardization for future product development and application basis.

The applications covered in this section include sub-technical committees under the IEC (including sub-technical committees under ISO /IEC JTC1) and

Developed by ITU-T's research group to support high data rate, mission-critical services in a data center space-intensive connection environment.

This section takes into account the application requirements listed in ISO /IEC 11801-1.2017 Appendix E.

This part should be used in conjunction with ISO /IEC 11801-1.2017. The general requirements for general cabling are specified in ISO /IEC 11801-1.2017.

Make the other standards in the ISO /IEC 11801 series have general requirements that can be referenced.

The physical layer requirements for the applications listed in Appendix E of ISO /IEC 11801-1.2017 have been determined to be compatible with the cabling performance specified in this section.

With the statistics of the premises in different countries and the model described in Chapter 6, the requirements for the cabling components are specified and they are specified in the cabling system.

Arrangement.

Therefore, this section describes the cabling structures that support a wide range of applications.

1) Adopt balanced cabling channels and EA, F, FA, I and II links as specified in ISO /IEC 11801-1.2017;

2) Adopt the component requirements specified in ISO /IEC 11801-1.2017 to ensure the performance of a cable for permanent links and channels

Or more than a specific application (eg, level);

3) Adopt the fiber optic cabling channel and link requirements specified in ISO /IEC 11801-1.2017.

The expected life of a typical cabling system depends on environmental conditions, supported applications, the life of the materials used in the cable, and other such as path connections.

Factors such as (the campus path is more difficult to access than the building path). Select the appropriate components and meet the expected life expectancy of the cabling system at

least in accordance with this section.

For 10 years.

This section takes into account the application requirements listed in ISO /IEC 11801-1.2017 Appendix E, and also refers to the relevant components and testers.

The relevant standards of the law.

Information technology user building group general cable

Part 5. Data Center

1 Scope

This part of GB/T 18233 specifies general cabling for equipment rooms and access rooms in data center buildings, or other types of buildings.

General cabling for in-data centers, including balanced cabling and fiber optic cabling.

This section is mainly applicable to buildings with a maximum telecommunications service distance of 2000m. Systems with larger distances can be used as reference.

The cabling system specified in this section supports a wide range of applications, including audio, data and video, as well as power.

This section is directly or by reference to ISO /IEC 11801-1.2017.

- a) the structure and minimum configuration of the general cabling in the data center;
- b) equipment outlet (EO) interface and external network interface (ENI);
- c) performance requirements for cabling links and channels;
- d) requirements and options for implementation;
- e) performance requirements for cabling components;
- f) Compliance requirements and verification procedures.

Safety (electrical safety and protection, fire protection, etc.) and electromagnetic compatibility (EMC) requirements are regulated by other standards and regulations and are not included in this section.

In the range. However, the information given in this section helps to comply with these standards and specifications.

2 Normative references

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