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

GB/T 36638-2018

**Information technology -- Telecommunications cabling
requirements for remote powering of terminal equipment**

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3.1 Terms and definitions

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to ISO /IEC TS29125.2017

"Information technology terminal equipment remote power supply communication cabling
begging".

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

---GB/T 18233-2008 General cable for information technology user buildings (ISO /IEC 11801-1.2002, IDT)

--- 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)

This standard is proposed and managed by the National Information Technology Standardization Technical Committee (SAC/TC28).

This standard was drafted. China Electronics Technology Standardization Research Institute, Shandong Province Computing Center (National Supercomputing Jinan Center), Shenzhen Competition

West Information Technology Co., Ltd., Nexans (China) Cable Co., Ltd., Shandong Zhengzhong Information Technology Co., Ltd., Shanghai Tiancheng Communication Technology

Technology Co., Ltd., Shandong Institute of Economics and Information Development.

Introduction

This standard is for the client to use the universal balanced cable of the user building group specified by ISO /IEC 11801 (3rd edition) to remotely terminal equipment.

Powered by the process, it provides new cabling installation and refurbishment instructions. User buildings can include one or more buildings or in a building

Contains multiple units. The cabling can be installed prior to the remote power supply or power terminal equipment.

ISO /IEC 11801-1 specifies the structural and performance requirements for a widely used cabling subsystem for equipment rooms, telecommunications rooms and work areas.

The cabling infrastructure provides a suitable interface to the equipment.

More and more unit equipment layouts are scattered and require remote power supply. This standard is used as a supplement to ISO /IEC 11801-1.

Supplementary provisions are provided for the implementation of universally balanced cabling for remote power supply.

This standard provides additional guidance for the remote power supply using balanced cabling in ISO /IEC 11801-1, given in different installations.

Under special conditions, special considerations are required.

* All collections of information to consider for remote powering;

* Remote power connector plugging and unloading instructions.

This standard does not include the requirements of relevant national and local safety standards and regulations.

This standard is based on the literature on remote powering of communication systems under a number of different installation conditions. Design support far

When the power supply is universally balanced, relevant safety standards and regulations, application standards, and related factors of equipment suppliers are also considered.

Inside.

ISO /IEC TR29125.2010 specifies a current carrying capacity of 300 mA per conductor, which is adjusted to 500 mA in this standard. This standard

Supplementary content for installation conditions is included, which is not described in ISO /IEC TR29125.2010. This standard provides for jumpers

Guidelines.

information Technology

Terminal equipment remote power supply communication cabling requirements

1 Scope

This standard.

a) specifies the use of each conductor with a current carrying capacity of up to 500 mA, providing remote access via a balanced cable in accordance with ISO /IEC 11801

Power supply for safety extra low voltage (SELV) and limited power supply (LPS) applications, and support for terminal wiring through balanced cabling

Prepare for remote power supply;

b) specifies the transmission and electrical parameters that support the balanced supply of remote cabling;

c) specifies the impact of including multiple installation scenarios and scenarios on the balanced cabling current carrying remote power;

d) specifies the design and configuration of the cabling as defined in ISO /IEC 11801-1.

Note. Safety Extra Low Voltage (SELV) means the maximum voltage is 60VDC, and the limited power supply (LPS) means that the maximum power of the 4-wire pair cable is 100W.

This standard establishes a mathematical model for evaluating the performance of different cable bundle sizes and cabling structures, as well as estimating different current carrying capacities.

Installation conditions.

Safety (eg, electrical safety and protection, fire protection, etc.) and electromagnetic compatibility (EMC) requirements are specified by other standards and are not included in this standard.

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

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 /IEC 11801-1 General cabling for information technology user buildings - Part 1. General requirements (Informationtech-

nology-Genericcablingforcustomerpremises-Part 1.Generalrequirements)

ISO /IEC 14763-2 Information technology - User building group cabling implementation and operation - Part 2. Planning and installation

(Information technology - Implementation and operation of customer premises cabling - Part 2. Plan-

ning and installation)

ISO /IEC TR24746 Information technology user building complex universal cabling inserted mid-span data terminal powering equipment (Information technology - Generic cabling for customer premises - Mid-span DTE power insertion)

3.1 Terms and definitions

The following terms and definitions, as defined by ISO /IEC 11801-1, ISO /IEC 14763-2, apply to this document.

ISO and IEC maintain a terminology database for standardization as follows.

3.1.1

Power supply equipment power source equipment

Equipment that provides electrical energy.