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

GB/T 19520.17-2010

**Mechanical structures for electronic equipment - Dimensions of
mechanical structures of the 482.6 mm (19 in) series - Part
3-105: Dimensions and design requirements of 1U-high case**

电子设备机械结构 482.6mm (19in) 系列机械结构尺寸 第3-105部分: 1U高度的
尺寸和设计要求

(English Translation)

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Foreword

GB/T 19520 "Electronic equipment mechanical structure 482.6mm (19in) series of mechanical structure size" is divided into the following sections.

--- Part 1. Panels and racks (GB/T 19520.1, IEC 60297-1, IDT);

--- Part 2. Cabinets and pitches of rack structures (GB/T 19520.2, IEC 60297-2, IDT);

--- Part 3-100. panels, subracks, chassis, racks and cabinets of the basic dimensions (IEC 60297-3-100);

--- Part 3-101. Subracks and associated plug (GB/T 19520.12, IEC 60297-3-101, IDT);

--- Part 3-102. plug handle (GB/T 19520.13, IEC 60297-3-102, IDT);

--- Part 3-103. Keying and alignment (GB/T 19520.14, IEC 60297-3-103, IDT);

--- Section 3-104 Part. connector-based subracks and plug-in interface Size (GB/T 19520.15, IEC 60297-3-104, IDT);

--- Section 3-105 Part. 1U height enclosure dimensions and design requirements (GB/T 19520.17, IEC 60297-3-105, IDT).

This section GB/T Part of 3-10519520.

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

This section uses the translation method is equivalent to using IEC 60297-3-105:2008 "electronic equipment mechanical structure 482.6mm (19in) series machine Section 3-105 part mechanical structure size. 1U height enclosure dimensions and design requirements. " Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 4210-2001 Electrotechnical terminology Electromechanical components for electronic equipment (IEC 60050 (581). 1978, IDT)

--- GB/T 18663.1-2008 electronic equipment and mechanical structures metric series inch series of tests - Part 1. cabinets, Racks, subracks and chassis Climatic, mechanical tests and safety requirements (IEC 61587-1:2007, IDT)

--- GB/T 18663.2-2007 electronic equipment and mechanical structures metric series inch series of tests - Part 2. Cabinets and Seismic test rack (IEC 61587-2:2000, IDT)

--- GB/T 18663.3-2007 electronic equipment and mechanical structures metric series inch series of test - Part 3. cabinets, Racks and subracks electromagnetic shielding performance tests (IEC 61587-3:2006, IDT)

--- GB/T 19290.1-2003 the development of electronic equipment isomers number sequence mode mechanical structures - Part 1. Generic specification (IEC 60917-1:1998, IDT) this section is technically fully consistent with international standards, only made the following editorial changes.

a) "This standard" be replaced by "this section";

b) Remove the preface to the international standards;

c) the decimal point, "" to "." this part of the electrical and electronic equipment by the National Standardization Technical Committee integrated structure (SAC/TC34) and focal points.

This section is responsible for drafting unit. Quartet Electric (Group) Co., Ltd. Lianyungang Shenda metal profiles.

Participated in the drafting of this section. Electrical Machinery Industry Beijing Technology and Economy Institute, State Grid Electric Power Research Institute, Huawei Technologies Co., Secretary, Guodian Nanjing Automation Co., Ltd., ZTE Corporation, NARI-RELAYS Electric Co., Ltd., XJ Electric Co. Shares the company, China Shipbuilding Industry Corporation No. 715 Institute.

Introduction

Microcomputer-based systems 1U chassis design has become the most used in servers, industrial electronics, information technology (IT) and telecommunications equipment Important internet. 1U chassis also sometimes referred to as "pizza box." 1U chassis applications has been widely extended, and solutions can be found in every area of the electronics industry.

IEC 60297-3-100 specifies rack and cabinet size details, such as the available port and panel frame mounting dimensions. however, IEC 60297-3-100 for the 1U chassis with single or multiple (n x 1U laminate) assembled in a manner consistent with the GB/T 19520 of Rack, the rack, provide guidance or size requirements are inadequate.

This section carries the weight of 1U chassis, the physical dimensions and suitability to provide guidelines and size requirements.

According to the needs of the application, this section also provides different types of chassis.

Size allows the interface to develop universal mounting accessories for different types of chassis specified. Because of this particular case and the type of application the choice determines the selected 1U chassis airflow requirements and suitability can be made by the designer.

Similar property unit times the height of the device can be derived from this section. That the economic value of this part can be pre-applied to the development has been determined Set the chassis attachment interfaces size. In addition, due to the choice of installation support, but also indicates the possibility of cooling.

Electronic equipment mechanical structures 482.6mm (19in) series of mechanical structure size Section 3-105 Part. 1U chassis height Dimensions and design requirements

1 Scope

GB/T 19520 provisions of this part of the installation in compliance with IEC 60297-3-100 rack 1U chassis and the cabinet size, carrying Weight and different installation methods can meet the requirements.

This section provides guidelines for cooling, as well as to electromagnetic compatibility GB/T 18663 series of standards, earthquakes, climate, and mechanical requirements the relevant provisions of the test.

This section diagram intended to guide product design, and should only be those specified dimensions.

The terminology used in this section comply with the requirements of IEC 60917-1.

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.

IEC 60050-581 International Electrotechnical Vocabulary Chapter 581. Electromechanical components for electronic equipment (Internationalelectrotechnicalvocabulary-Part 581. Electromechanicalcomponentsforelectronic equipment) IEC 60297-3-100 electronic equipment mechanical structure 482.6mm (19in) series of mechanical structure size Part 3-100. surface the basic dimensions of the plate, subracks, chassis, racks and cabinets (Mechanicalstructuresforelectronic equipment-Dimensions ofmechanicalstructuresofthe482.6 mm (19in) series-Part 3-100. Basicdimensionsoffront panels, subracks, chassis, racksandcabinets) IEC 60917-1 development of electronic equipment isomers number sequence mode mechanical structures - Part 1. Generic specification (Modularorderfor thedevelopmentofmechanicalstructuresforelectronic equipmentpractices-Part 1. Genericstandard) IEC 61587-1 electronic equipment mechanical structure IEC 60917 and IEC 60297 test cabinets, racks, subracks and chassis air Climate, mechanical tests and safety requirements (Mechanicalstructuresforelectronic equipment-TestsforIEC 60917and IEC 60297-Part 1. Climatic, mechanicaltestsandsafetyaspectsforcabinets, racks, subracksand chassis) IEC 61587-2 IEC test electronic equipment mechanical structures - Part 260 917 and IEC 60297. the cabinet and the rack ground Shock Test (Mechanicalstructuresforelectronic equipment-TestsforIEC 60917andIEC 60297-Part 2. Seismictestsforcabinetsandracks) IEC 61587-3 electronic equipment mechanical structure IEC 60917 and IEC 60297 - Part 3. cabinets, racks and subracks Electromagnetic shielding performance tests (Mechanicalstructuresforelectronic equipment-TestsforIEC 60917and IEC 60297-Part 3. Electromagneticshieldingperformancetestsforcabinets, racksandsubracks)

3 Terms and Definitions

And the following terms and definitions defined in IEC 60917-1 and IEC 60050-581 apply to this document.