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OF CHINA**

中华人民共和国国家标准

GB 8898–2011

Replace GB 8898–2001

**Audio, video and similar electronic apparatus—Safety
requirements**

音频、视频及类似电子设备 安全要求

(IEC 60065: 2005, MOD)

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Foreword

All the technical contents in this standard are mandatory.

This standard is drafted according to the rules specified in GB/T 1.1-2009.

This standard is modified by redraft method, and the international standards IEC 60065:2005 Section 7.1 *Safety Requirements for Audio, Video and Similar Electronic Equipment* (English version) is adopted.

The technical differences between this standard and IEC 60065:2005:

a) Marking of the power rating

The marking of the rated voltage and frequency in 5.1e) and f) of IEC 60065:2005 does not clearly specify specific values, which is only expressed with example, and the voltage in example excludes the voltage in China, according to the power grid and power supply requirements in China, the supply voltage is 220V, 50Hz or three-phase 380V and 50Hz, therefore, in this standard 5.1e) clearly specify the rating of the power supply: the single rated voltage shall be marked as 220V or three-phase 380V; the rated voltage range shall include 220V or three-phase 380V; for multi-rated voltages, one of which must be 220V or three-phase 380V and set as 220V or three-phase 380V when leaving the factory; the multi-rated voltage range shall include 220V or three-phase 380V and set as the voltage range including 220V or three-phase 380V when leaving the factory.

Rated frequency or rated frequency range is clearly specified under 5.1f) in this Standard: rated frequency or rated frequency range shall be 50Hz or contain 50Hz.

b) Safety instructions

Safety instruction is clearly specified, the description “The language acceptable for the state where the equipment is intended for shall be used” in 5.4 is changed to “Standard Chinese shall be used”.

In Chapter 5, safety warnings and warning signs are added for operation conditions under altitude and tropical climate.

For equipment applies only, below an altitude of 2,000m, “Applies only to safe operation below an altitude of 2,000m” or similar warning statement or marking indicator shall be provided on prominent location of the equipment.

For equipment applies only to non-tropical climates: “Applies only to safe operation under non-tropical climates” or similar warning statement or marking indicator shall be provided on prominent location of the equipment.

If marking indicator is used separately, the meaning shall be given in the instruction.

Security warning statement (for example, warning statement used under the altitude of 2,000m and lower areas and non-tropical climates) shall be in the language acceptable for the destined market.

Added Annex R provided instructions of new safety warning marking.

Added Annex S provided comparison table of the Chinese, Tibetan, Mongolian, Zhuang characters and Uyghur characters for sample of safety-related description in this standard.

c) Power plug

According to the dedicated power plug standards of our nation, the following is added to Note 1 in 15.1.1: the power plug to connect the equipment and network source shall comply with the requirements of GB 1002 or GB 1003.

d) Application scope

IEC 60065:2005 applies to equipment used below an altitude of 2,000m, 1.1.3 stipulates that additional requirements are needed for the equipment planned to be used at plateau above an altitude of 2,000m. IEC 60065:2005 makes additional requirements for equipment used under tropical climates.

Due to the special nature of the geographic and climatic conditions in China, and after modifying some provisions in the IEC 60065:2005, this standard applies to the equipment used below an altitude of 5,000m (including 5,000m) and the equipment used under

tropical climate conditions. For the equipment designed only to be used below an altitude of 2,000m, or under non-tropical climates, corresponding lower requirements can be adopted, but warnings shall be provided.

The first paragraph of 1.1.3 in this standard is changed to: This standard applies to equipment mainly used in dry areas and temperate zone or tropical climates with an altitude of 5,000m and lower areas. The fourth paragraph of 1.1.3 is changed to: for the equipment intended to be used on the vehicle, vessel or aircraft or used above an altitude of 5,000m altitude, additional requirements may be needed.

e) Required value for electric clearance

Required value for electric clearance varies from different altitudes. For the equipment applying to be used below an altitude of 5,000m, the required value of electric clearance shall correspond to requirements of an altitude of 5,000m, that is to multiply it by the multiplication factor 1.48 of the corresponding altitude 5,000m in GB/T 16935.1^{*} and that is to multiply the required value in standard Table 8, Table 9 and Table 10 by 1.48; for equipment scheduled only below an altitude of 2,000m, the required value of electric clearance shall correspond to requirements on the corresponding attitude of 2,000m, that is to multiply it by the multiplication factor 1 of corresponding altitude 2,000m in GB/T 16935.1 and that is also to directly use the required value in Table 8, Table 9 and Table 10.

The following content is added as second paragraph for 13.3.2: these requirements apply to equipment operation in the case that altitude is not more than 2,000m. For the equipment planned to be used above an altitude of 2,000m to 5,000m, the minimum electric clearance should be multiplied by the multiplication factor 1.48 of corresponding altitude 5,000m given in Table A.2 of GB/T 16935.1. For the equipment planned to be used at altitude of 5,000m and above, the minimum electric clearance should be multiplied by the multiplication factor given in Table A.2 of GB/T 16935.1.

^{*} If specific provisions of other standards are referenced in this standard, and the year number of the normative reference is not listed, then the year number refers to the standard's year number listed in information adoption in 1.2 and Annex Q.

The following content is added as second paragraph for 13.3.3: required value in the table applies to equipment only intended to be used at an altitude of 2,000m and lower areas. For the equipment planned to be used at altitude between 2,000m and 5,000m, the minimum electric clearance should be multiplied by the multiplication factor 1.48 of corresponding altitude 5,000m given in Table A.2 of GB/T 16935.1. For the equipment planned to be used at altitude of 5,000m and above, the minimum electric clearance should be multiplied by the multiplication factor given in Table A.2 of GB/T 16935.1.

“(Applies to an Altitude of 2,000m and Lower Areas)” is added for the header of Table 8, Table 9 and Table 10.

The Note 3 of Annex J.6 shall be modified as the text moving to the second paragraph: for the equipment scheduled to be used above an altitude of 2,000m to 5,000m, the minimum electric clearance shall be multiplied by the multiplication factor 1.48 of corresponding altitude 5,000m given in Table A.2 of GB/T 16935.1 based on the Table J.2. For the equipment planned to be used above an altitude of 5,000m, the minimum electric clearance should be multiplied by the multiplication factor given in Table A.2 of GB/T 16935.1.

When the components have been verified to comply with the relevant national and industry standard for components, the components as an integral part of the equipment shall also withstand relevant tests specified in this standard. The following content is added as Note 6 in Chapter 14: If the range of application is below an altitude of 2,000m according to the components standard provisions, then the relevant requirements of Chapter 13 shall be met based on the range of application specified in this standard.

f) Heat-moisture treatment conditions

This Standard applies to the equipment used under tropical climates, the heat treatment-moisture treatment conditions in 10.2 shall be treated as tropical climatic conditions. For the equipment designed only to be used under non-tropical climates, the heat-moisture treatment conditions shall comply with provisions of CTL resolution (resolution list No.: 624/07).

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