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

GB 25130-2010

Safety requirements for unitary air-Conditioners

单元式空气调节机 安全要求

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Foreword

All the technical contents of this standard is mandatory. The standard proposed by China Machinery Industry Federation. This standard by the national refrigeration and air conditioning equipment Standardization Technical Committee (SAC/TC238) centralized. This standard is drafted by: Hefei General Machinery Research Institute, Guangdong Province Jeroen air conditioning equipment company, Nanjing Wuzhou Group Co., Ltd., South Beijing days plus air-conditioning Co., Ltd., Guangdong Midea Commercial Air Conditioning Equipment Co., Zhejiang Xinyi Control System Co., Ltd., Hefei General Machine Electrical product testing hospital. Participated in the drafting of this standard. Shanghai Mitsubishi Electric air conditioner · turbot Electric Co., Ltd., Daikin Air Conditioning (Shanghai) Co., Ltd., Ningbo Oakes Electric Co., Ltd., Qingdao Haier Air Conditioning Electronics Co., Ltd., Shenzhen McQuay Air Conditioning Co., Ltd., Guangzhou York air-conditioning refrigeration provided Preparation Ltd., Trane Air Conditioning Systems (China) Co., Ltd. The main drafters of this standard. Zhu Zhen Tao, Zhao Xun, Tan to Aberdeen, Army Liang, Tian Ming forces, Qin Miao Qing, Ma Jinping, Tong Xingsheng, Shijian Chun, Jiang Chunyu, German national defense, Zhou Hongjun, Zhang Vega, manager of Kuang. This standard by the National Standardization Technical

Committee refrigeration and air conditioning equipment responsible for the interpretation.
This standard was first formulated. Unit air conditioner security requirements

1 Scope

GB 25130-2010 is the Chinese national standard on safety requirements for unitary air-conditioners, in the field of energy and heat transfer engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 26 September 2010 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2011. Classification: ICS 27.200, CCS J73. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the safety requirements for unit air conditioner. This standard applies to refrigeration greater than or equal 7000W, 600V AC power supply voltage is less than the rated air-cooled and water-cooled single Element air conditioner (single-cold type, heat pump, heat pump and auxiliary heating with a pure electric heating heating type). This standard also applies to multi air conditioning (heat pump) unit, air duct air-conditioning (heat pump) units, roof air-cooled air-conditioning (heat pump) Machine Group, dehumidifiers, heat pump water heater, heat pump units and so on complete fresh air. This standard does not apply to non-mechanical refrigeration mode of unitary air conditioner.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 4208-2008 housing protection (IP Code) (IEC 60529.2001, IDT)

GB 4343.1 EMC household appliances, electric tools and similar apparatus - Part 1.
Emission (

GB 4343.1- 2009, IEC /CISPR14-1.2005, IDT)

GB 4706.1-2005 household and similar electrical appliances General requirements for safety (IEC 60335-1.2001, IDT)

GB 4706.17 Household and similar electrical appliances motor - compressors - Particular

requirements (GB 4706.17-2004,

IEC 60335-2-34.1999, IDT)

GB 4706.32-2004 household and similar electrical appliances - Particular requirements for heat pumps, air conditioners and dehumidifiers (

IEC 60335- 2-40.1995, IDT)

GB 5013.4 rated voltage of 450/750V and below rubber insulated cables Part 4. Cords and flexible cables (GB 5013.4- 2008, IEC 60245-4.2004, IDT)

GB 5023.3 rated voltage of 450/750V and below PVC insulated cables - Part 3. Non - sheathed cables for fixed wiring (GB 5023.3-2008, IEC 60227-3.1997, IDT)

GB 5226.1-2008 Safety of machinery electrical equipment Part 1. General requirements (IEC 60204-1.2005, IDT)

GB 9237-2001 cooling and heating with a mechanical refrigeration system security requirements (eqv ISO 5149.1993)

GB 17625.1 Electromagnetic Compatibility Limits for harmonic current emissions (equipment input current $\leq 16\text{A}$) (GB 17625.1- 2003, IEC 61000-3-2.2001, IDT)

3 General requirements

The structure of the air conditioner should meet the safe operation under normal use, negligence may occur even in normal use, it will not lead to Risk to people and the surrounding environment. All relevant tests shall be specified by the standard is checked.

4 Provisions. Category

5 In terms of protection against electric shock, the air conditioner should be consistent with the relevant provisions of GB 4706.1-2005 class I appliances. Operating handles, knobs And some other parts and electronic control circuit can be used in II or type III GB 4706.1-2005 implement the relevant provisions. Air conditioner should be GB waterproof moisture proof classification 4208, the outdoor unit should be at least IPX4, the indoor unit can be IPX0.

6 signs and instructions

Flag of the air conditioner should be GB/T 17758 requirements, and add the following.

- a) a single refrigerant directly give their identity. Mixed refrigerant, should give its chemical symbol.
- b) cooling system the maximum allowable working pressure.
- c) except IP code according to water level identified, IPX0. Other relevant requirements,

should refer to GB 4706.32-2004 specified in Chapter 7.

7 Protection against electric shock

7.1 air conditioner housing structure and adequate protection response to accidental contact with live parts. Under normal operating state, if not After using the tool to open the door and remove the lid or removable parts should also be able to prevent accidental human contact with live parts. In the correct installation Under the state, the air conditioner should be used in the test shown in Figure refers to GB 4706.1-2005 and GB 4706.1-2005

8.1.1 requirements in advance Line protection against electric shock test, the test finger shall not touch live parts.

7.2 pairs need to be checked and adjusted, operation or maintenance of electrical equipment and control elements, should be centrally installed in a predetermined degree of protection of the electrical control System inside the control box protection requirements according to GB 4208 classification, shall not be less than IP22, protection and grounding. Air conditioner housing, knobs Rotating shaft or within the switch should not be charged. Compliance is checked by inspection and test.

7.3 auxiliary heating with the air conditioner, you should not use a bare electric heating wire. Compliance is checked by inspection judgments.

8 Power input and current

8.1 in the input power deviation of rated voltage, rated frequency and nominal operating conditions, the air conditioner should be in the range specified in Table 1. Table

1 Input power deviation Category rated input power deviation When the air conditioner nominal cooling and heating conditions on behalf of the nominal value of 10% Electric heating means nominal value of 5% -10%

8.2 rated voltage, rated frequency and nominal operating conditions, the air conditioner operating current should not exceed 110% of rated current. By measuring Compliance is checked.

9 Fever

In normal use, the temperature of the air conditioner and its surroundings should not be too high. Press GB 4706.32-2004 provisions 11.2 -

11.9 Test conditions, by the temperature of the components and the surrounding environment was measured to determine their eligibility.

10 Leakage current and electric strength at operating temperature