

ICS 27.200
CCS J 73



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

GB/T 7941-2019

Refrigeration test systems

制冷试验装置

Issued on: October 18, 2019

Implemented on: September 1, 2020

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 7941-1987 "Refrigeration Unit Test", compared with GB/T 7941-1987, the standard is in the structure, requirements, etc. There is no obvious correspondence between the two aspects, and the main technical contents are changed as follows:

--- Removed the test provisions, test methods and other related content (see Chapters 2 to 4 of the 1987 edition);

--- Increased the design, construction, commissioning and acceptance requirements for test equipment for refrigeration and air conditioning products and their components (see Chapter 4 to Chapter 7). This standard was proposed by the China Machinery Industry Federation. This standard is under the jurisdiction of the National Refrigeration and Air Conditioning Equipment Standardization Technical Committee (SAC/TC238). This standard was drafted. Hefei General Environmental Control Technology Co., Ltd., Zhuhai Gree Electric Co., Ltd., York (Wuxi) Air Conditioning Refrigeration Equipment Co., Ltd., Guangdong Shenling Environmental System Co., Ltd., Zhejiang Zhengli Shengneng Technology Co., Ltd., Hefei General Electromechanical Product Testing Institute Co., Ltd., Daikin (China) Investment Co., Ltd. The main drafters of this standard. Zhang Xiuping, Wu Junfeng, Zheng Chuanjing, Fan Haibin, Hu Yusheng, Hu Xianghua, Pan Zhanhua, Huang Yuanzhang, Qi Shufang, Zhang Jianqiang, Cheng Liquan, Yan Shichao, Zhou Junhai, Ge Tan, Gao Qiming, Zheng Qingwei, Zhang Wei. The previous versions of the standards replaced by this standard are.

---GB/T 7941-1987. Refrigeration test device

1 Scope

China's national standard for refrigeration and air conditioning test systems. Every performance figure on an air conditioner, a chiller or a compressor comes from a calorimeter room, and this standard covers the rooms themselves rather than the products tested in them. That inversion matters commercially: the energy efficiency ratings that determine what may be sold, what is subsidised and what a buyer compares are all produced by these facilities, so a systematic error in a test room becomes a systematic error in a market. Building one is demanding - the room must hold air temperature and humidity constant while a machine pumps kilowatts of heat into it, and the heat balance has to be measured to a fraction of a per cent through walls that are themselves a heat path. The standard specifies the requirements for the design, construction, commissioning and acceptance of test facilities for air conditioning equipment, chillers and heat pumps, refrigeration equipment, compressors, pressure and flow regulating devices, fans and ventilation equipment, heat exchangers and auxiliaries.

This standard specifies the relevant requirements for the design, construction, commissioning and acceptance of test equipment for refrigeration and air-conditioning products and their components. This standard applies to air conditioning equipment, cold water (heat pump) units, refrigeration and refrigeration equipment, special and special equipment, etc. Product and refrigerant compressors (groups), pressure and flow regulating equipment, fans and ventilation equipment, heat exchange equipment and auxiliary equipment Performance testing device for air conditioning products. Other similar test devices can be referred to for execution.

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.

GB/T 150 pressure vessel (all parts)

GB/T 5226.1 Mechanical electrical safety machinery and electrical equipment - Part 1. General technical conditions

GB/T 5773 volumetric refrigerant compressor performance test method Basic identification color, identification symbol and safety identification of

GB 7231 industrial pipeline

GB/T 7725 room air conditioner

GB 8624-2012 Classification of combustion properties of building materials and products

GB/T 9237-2017 Refrigeration systems and heat pump safety and environmental requirements

GB/T 10870 steam compression cycle cold water (heat pump) unit performance test method

GB/T 16895.1 Low-voltage electrical installations - Part 1. Basic principles, general characteristics assessment and definition

GB/T 16895.6 Low-voltage electrical installations - Part 5-52. Selection and installation of electrical equipment

GB/T 17758 unit air conditioner

GB/T 18362 direct-fired lithium bromide absorption type cold (warm) water unit

GB/T 18431 steam and hot water type lithium bromide absorption chiller