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

GB 26920.2-2015

**Minimum allowable values of energy efficiency and energy efficiency
grades for commercial refrigerating appliances - Part 2: Commercial
refrigerated cabinets with self-contained condensing unit**

(English Translation)

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Table of Contents

Foreword...	3
1 Scope...	5
2 Normative references...	5
3 Terms and definitions...	6
4 Technical requirements...	7
5 Test methods...	14
6 Inspection rules...	16
7 Energy efficiency grade labeling...	17
Appendix A...	18

Foreword

The Section 4.2 of this Part is mandatory, while other sections are recommended.

GB 26920 Minimum allowable values of energy efficiency and energy efficiency grades for commercial refrigerating appliances is intended to develop the following four parts.

- Part 1.Refrigerated display cabinets with remote condensing unit;
- Part 2.Commercial refrigerated cabinets with self-contained condensing unit;
- Part 3.Refrigerating vending machine;
- Part 4.Commercial ice maker.

This Part is the Part 2 of GB 26920.

This Part is drafted according to the rules given in the GB/T 1.1-2009.

This Part was proposed by the Department of Resource Conservation and Environmental Protection of National Development and Reform Commission, and the Department of Energy Conservation and Comprehensive Utilization of the Ministry of Industry and Information Technology.

This Part shall be under the jurisdiction of the National Technical Committee for Standardization of Energy Foundation and Management (SAC/TC 20).

Drafting organizations of this Part. China National Institute of Standardization, Chinese Association of Refrigeration, Internal Trade Engineering Design & Research Institute, Qingdao Haier Special Freezer Co., Ltd, Hisense Ronshen (Guangdong) Freezer Co., Ltd, Guangdong Xingxing Refrigeration Equipment Co., Ltd, Yindu Kitchen Equipment Co. Ltd, AHT Cooling Systems (Changshu) Co., Ltd, Panasonic Appliances Cold Chain (Dalian) Co., Ltd, Jiangsu Baixue Electric Appliances Co., Ltd, Carrier Air-conditioning & Refrigeration R & D Management (Shanghai) Co., Ltd, Qingdao Hiron Commercial Cold Chain Co., Ltd, Shandong Xiaoya Retail Equipment Co., Ltd, Qingdao Haier-Carrier Refrigeration Equipment Co., Ltd, Shanghai Highly Nakano Refrigerators Co., Ltd, Hoshizaki Motor (Suzhou) Co., Ltd, Aucma Co., Ltd, Shandong Hongtai Electrical Appliance Co., Ltd, Epta (Qingdao) Commercial Facilities Co., Ltd, Beijing Er Shang-Fukushima Machinery Electric Co., Ltd, Wenling Beibingyang Fresh Showcase Factory, Shanghai Furong Industry Co., Ltd, Zhongshan Jingli Refrigeration Equipment Manufacturing Co., Ltd, Beijing Embraco Snowflake Compressor Company Ltd, Secop Compressors (Tianjin) Co., Ltd, Zhengzhou Kaixue Cold Chain Co., Ltd, Jimei University, Tianjin University of Commerce, Shanghai Ocean University, Harbin University of Commerce, and National Quality Supervision and Inspection Center of Commercial Refrigeration Equipment.

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Minimum allowable values of energy efficiency and
energy efficiency grades for commercial refrigerating
appliances - Part 2.Commercial refrigerated cabinets
with self-contained condensing unit

1 Scope

This Part of the GB 26920 specifies the minimum allowable values of energy efficiency, energy efficiency grades, evaluation values of energy conservation, test methods, inspection rules, and energy efficiency grade labeling of commercial refrigerated cabinets with self-contained condensing unit (hereinafter referred to as "self-contained commercial refrigerated cabinets").

This Part applies to the following commercial refrigerated cabinets.

- Self-contained commercial refrigerated cabinets for food sales and exhibitions;
- Closed self-contained beverage refrigerated display cabinets used in stores, hotels and restaurants;
- Commercial refrigerated cabinets with solid doors (such as kitchen refrigerators, refrigerated storage cabinets, and refrigerated working tables), and self-contained commercial refrigerated cabinets for non-retail uses.

2 Normative references

The following documents are essential to the application of this document. For dated references, only the versions with the dates indicated are applicable to this document. For undated references, only the latest versions (including all the amendments) are applicable to this document.

GB/T 21001.1 Refrigerated display cabinets - Part 1.Vocabulary

GB/T 21001.2-2015 Refrigerated display cabinets - Part 2.Classification, requirements and test conditions

GB/T 21001.3 Refrigerated display cabinets - Part 3.Test rating

SB/T 10794.1-2012 Commercial refrigerated cabinets - Part 1.Vocabulary

3 Terms and definitions

The terms and definitions defined in the GB/T 21001.1, GB/T 21001.2-2015, GB/T 21001.3, SB/T 10794.1-2012, SB/T 10794.2-2012, and SB/T 10794.3-

3.1 Maximum allowable values of energy consumption of self-contained commercial refrigerated cabinets

3.2 The base value of energy consumption

Ebase

It refers to the energy consumption of the commercial refrigerated cabinet with single room and classified as some basic cabinet structure after 24-hour operation under specified working conditions, in unit of kilowatt-hour per 24 hours (kWh/24h).

3.3 Actual energy efficiency index

It refers to the ratio OF the measured value of energy consumption (total energy consumption, TEC) TO the maximum allowable value of energy consumption (TECmax) of the self-contained commercial refrigerated cabinet.

3.5 The independent room

It refers to the refrigeration room using thermal insulation materials for isolation in the refrigerated cabinet.

4.1 Calculation of maximum allowable values of energy consumption

CALCULATE the maximum allowable values of energy consumption according to the Formula (1).

4.2 Maximum allowable values of energy consumption of self-contained commercial refrigerated cabinets

The energy consumption of different types of self-contained commercial