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GB/T 45176-2024

**Green product assessment - Commercial refrigerating
appliances**

绿色产品评价 商用制冷器具

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document was proposed by the China Light Industry Federation and the National Green Product Evaluation and Standardization General Group. This document is under the jurisdiction of the National Technical Committee on Refrigeration Standardization (SAC/TC119). This document was drafted by: China National Institute of Standardization, Qingdao Haier Special Refrigerator Co., Ltd., Bingshan Songyang Cold Chain (Dalian) Co., Ltd., Qingdao Hisense Commercial Cold Chain Co., Ltd., Hefei Midea Refrigerator Co., Ltd., Shanghai Highly Zhongye Refrigeration Co., Ltd., Huashang International Engineering Co., Ltd., COFCO Engineering Testing and Certification Co., Ltd., Qingdao Hairong Commercial Cold Chain Co., Ltd., Foshan Shunde Xike Electric Co., Ltd., Midea Group Co., Ltd., Jiangsu Xingxing Cold Chain Technology Co., Ltd., Carrier Air Conditioning and Refrigeration R&D Management (Shanghai) Co., Ltd., Yindu Catering Equipment Co., Ltd., Shanghai General Fuji Refrigeration Co., Ltd., Copeland Environmental Technology (Suzhou) Co., Ltd., Ningbo Hanming Technology Co., Ltd., Aute Refrigeration System (Changshu) Co., Ltd., Qingdao Haier Carrier Refrigeration Equipment Co., Ltd., Pentair Water Processing (Hangzhou) Co., Ltd., Xingqi Electric (Suzhou) Co., Ltd., Shandong Binzhou Bingchu Refrigeration Equipment Co., Ltd., Guangdong Sike Electric Co., Ltd., Aucma Co., Ltd., Zhengzhou Kaixue Cold Chain Co., Ltd., Ningbo Rote Electric Co., Ltd., Zhejiang Heli Refrigeration Equipment Equipment Co., Ltd., Shandong Xinhai Intelligent Technology Co., Ltd., Qingdao Hongtai Liangzheng Electric Co., Ltd., Weikai Testing Technology Co., Ltd., Jiangsu Weikai Nuo Testing Technology Co., Ltd., Guangdong Husky

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1 Scope

GB/T 45176-2024 is the green product assessment standard for commercial refrigerating appliances - the display cabinets, chest freezers and beverage coolers that run continuously in every Chinese shop and convenience store. They are an unusually good target for such a standard, because their duty cycle is close to constant, the fleet is enormous, and the refrigerants they contain are being phased down under the Kigali Amendment, so both the energy and the direct emissions are in play. The standard sets the evaluation requirements, comprising the basic requirements the manufacturer and product must meet and the evaluation index requirements covering resource attributes, energy attributes, environmental attributes and quality attributes, then the evaluation method, with a normative annex giving the calculation method for the annual carbon reduction. It takes effect on 1 July 2025.

This document specifies the terms and definitions, evaluation indicators and evaluation methods for green commercial refrigeration appliances. This document applies to the green product evaluation of motor-driven compression commercial refrigeration appliances. This document is not applicable to the green product evaluation of household refrigeration appliances.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 191 Pictorial markings for packaging, storage and transportation

GB/T 5296.1 Instructions for use of consumer products Part

3 Terms and definitions

The terms and definitions defined in GB 26920, SB/T 10941 and the following apply to this document.

3.1 During the life cycle, it complies with environmental protection requirements, is harmless or less harmful to the ecological environment and human health, consumes less resources and energy, and has low carbon emissions. Low-emission, high-quality commercial refrigeration appliances.