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

GB/T 9098-2008

**Hermetic motor-compressors for refrigerators
(English Translation)**

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Foreword

This Standard replaces GB/T 9098-1996 "Hermetic Motor - Compressors for Refrigerators".

Compared with GB/T 9098-1996, the main technical changes in this Standard are as follows.

- the R12 refrigerant compressor in "Application Scope" was replaced by R600a and R134a refrigerant compressors;
- the terms and definitions of rated parameter, variable speed (variable frequency) compressor, and variable capacity compressor were added;
- the classifications of speed control and capacity change were added in the product classification;
- the basic contents of expression methods for compressor specification and model were specified;
- the requirements of product technical specification were added in the technical requirements, indicating the rated parameters and test conditions of technical indexes such as product refrigerating capacity and coefficient of performance (COP) of the manufacturer;

- the grading of all performance indexes of compressor by nominal working volume of cylinder was replaced by nominal refrigerating capacity;
- the nominal coefficient of performance (COP) of compressor was graded by efficacy level;
- the performance indexes, test methods, and assessment contents of variable speed (variable frequency) compressor were added;
- the requirements of compressor inclining starting test were added;
- the determination methods for residual moisture content and internal impurity content of the complete un-oiled compressor were specified;
- the test methods and assessment contents for capillary tube plugging rate of R134a refrigerant compressor were added;
- the requirements of "motor winding temperature" and "shell temperature" were replaced according to the relevant contents in GB 4706.17 "Household and Similar Electrical Appliances - Safety - Particular Requirements for Motor-Compressors";
- the fire warning sign for combustible refrigerant compressor was added.

This Standard was proposed by China National Light Industry Council.

This Standard shall be under the jurisdiction of National Technical Committee on Household Appliances Condenser of Standardization Administration of China (SAC/TC 46).

Drafting organizations of this Standard. Jiaxipera Compressor Co., Ltd., Huangshi Donper Electric Appliance Co., Ltd., China Household Electric Appliance Research Institute, China Household Electrical Appliances Association, China National Electric Apparatus Research Institute, China Quality Certification Center, Beijing Embraco Compressor Co., Ltd., Guangzhou Refrigerator Co., Ltd., Zanussi Electromechanical Tianjin Compressor Co., Ltd., Shanghai Konor Electric Machinery Co., Ltd., Huayi Compressor Co., Ltd., Jiangsu Baixue Electric Appliance Co., Ltd., Hangzhou Qianjiang Refrigeration Group Industrial Co., Ltd., and Taizhou LG Electronics

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The previous editions replaced by this Standard are as follows. GB/T 9098-1988 was firstly issued; GB/T 9098-1996 was the first revision; and this Standard is the second revision.

Hermetic Motor - Compressors for
Refrigerators

1 Scope

This Standard specifies the terms and definitions, product classification, technical requirements, test methods, inspection rules and the requirements of marking, packaging, transportation and storage of hermetic motor-compressors for refrigerators. The safety requirements of compressor are detailed in GB 4706.17 "Household and Similar Electrical Appliances - Safety - Particular Requirements for Motor-Compressors".

This Standard is applicable to the hermetic motor-compressors used for low-back-pressure * household and similar electric refrigerators with R600a and R134a refrigerants, and the nominal refrigerating capacity not exceeding 400 W under the specified working conditions in this Standard (hereinafter referred to as "compressor").

For similar compressors with other types of refrigerants, this Standard may also be referred to.

This Standard is not applicable to vehicular refrigerator compressors.

2 Normative References

The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. For dated references, subsequent amendments

(excluding corrections) or revisions of these publications do not apply. However, all parties coming to an agreement according to this Standard are encouraged to study whether the latest editions of these documents are applicable. For undated references, the latest edition applies.

GB/T 1019 General Requirements for the Package of Household
and Similar Electrical Appliances

GB/T 2828.1-2003 Sampling Procedures for Inspection by Attributes - Part

1 Sampling Schemes Indexed by Acceptance Quality

Limit (AQL) for Lot-by-lot Inspection (ISO 2859-1.1999,
IDT)

* Low-back-pressure refers that the range of vaporization temperature is between -35°C
(may
be lower if necessary) and -15°C.

GB/T 2829-2002 Sampling Procedures and Tables for Periodic
Inspection by Attributes (Apply to Inspection of Process
Stability)

GB/T 4214.1-2000 Acoustics - Household and Similar Electrical
Appliances - Test Code for Determination of Airborne
Acoustical Noise - Part 1.General Requirements (eqv
IEC 60704-1.1997)

GB 4706.17-2004 Safety of Household and Similar Electrical Appliances -
Particular Requirements for Motor-Compressors (IEC
60335-2-34.1999, IDT)

GB/T 5773-2004 Method of Performance Test for Positive Displacement
Refrigerant Compressors (ISO 917.1989, MOD)

GB/T 8059 Household and Similar Refrigerating Appliances

IEC 60335-2-24/A2.2007 Safety of Household and Similar Electrical Appliances -
Part. 2-24.Particular Requirements for Refrigerating