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

GB/T 13470-2008

Replacing GB/T 13470-1992

Economical operation for the fan system

通风机系统经济运行

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Basic requirements of economic operation of the system

Foreword

This standard replaces GB/T 13470-1992 "Ventilator System Economic Operation." This standard compared with GB/T 13470-1992 main changes are as follows:

- Highlight the economic operation of the system transformation measures;
- The scope of the words "for AC electric drive with a ventilation system, the new system is designed for implementation." Delete the original Standard "applicable to enterprises and institutions";
- Deleted the original term, increase the "pipeline" of terms and definitions;
- Increased its equipment, crew, pipe network, the system requirements for running the basic economic requirements;
- Respectively equipment, units, pipe network, the system proposed specific evaluation methods;
- Original "excellent, good," "qualified" and "unqualified" to evaluate the term. "Run Economy", "Run reasonable" and "not run economy";
- Deleted the original concept and calculation method of standard energy efficiency, the use of unit rated unit efficiency and method for comparing the efficiency of As the main basis for discrimination;
- Increasing the economic operation of the system test method chapter;
- Proposed separately by management and technical measures. This standard by the National Standardization Technical Committee for Energy and management proposed. This standard is under the jurisdiction of the National Energy Commission on the basis of rational use of electricity points and Management Standardization Technical Committee. Drafting of this standard. Shenzhen real smart Co., Ltd., China National Institute of Standardization, Shenyang Blower Research Institute, a wide set of Guangzhou Pump Co., Ltd. a group. The main drafters of this standard. Zhao Yuejin, Li cattle, Dike Jun, Li Xianrui, PAPT, Peinian Jiang, Liu Fu Yun. This standard was first published in 1992, this is the first

revision. Fan System Economic Operation

1 Scope

GB/T 13470-2008 is the Chinese national standard on economical operation for the fan system, in the field of fluid systems and general-purpose components. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 27 May 2008 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 November 2008. Classification: ICS 23.120, CCS J72. 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 basic requirements for the ventilation system AC electric drive economic operation, determination and evaluation methods, test methods and transformation Measures. This standard applies to the fan in the AC drive systems, the new system is designed for implementation.

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/T 10178 Industrial fans field performance test

GB/T 12497 three-phase asynchronous motor economy

GB/T 13466 AC driven fan (pump, air compressor) General economic operation

GB/T 13467 system fan power balance test and calculation methods

GB/T 13471 saving measures economic calculation and evaluation methods

GB 17167 energy use per unit of energy measuring instruments and General Manager

GB 18613 small and medium three-phase asynchronous motor energy efficiency limit value and energy efficiency rating

GB/T 19075 Industrial fans - Vocabulary and definitions of categories

GB 19761 fans limited value of energy efficiency and energy conservation evaluation values

GB/T 21056 fan, pump load frequency control energy-saving drive system and its application technology conditions

JB/T 2977 Industrial fans, blowers and turbo compressors terminology

3 Terms and Definitions

GB/T 19075 JB/T 2977 and established the following terms and definitions and apply to this standard.

3.1 Ventilation ducts and fans as well as collectively coupled valves, filters, muffler, and other accessories outlet pipe.

4 Basic requirements of economic operation of the system

4.1 Principles Requirements Ventilation system should meet the economic operation of GB/T 13466 of.

4.2 pairs equipment requirements

4.2.1 Fan selection should meet the following requirements.

- a) meet the air pressure and air flow system;
- b) Select the fan should meet the requirements of GB 19761;
- c) design operating point specified by the manufacturer of the fan should be in the area of economic work;
- d) determining the fan adjustment mode according to the load characteristics.

4.2.2 supporting the fan AC motors shall comply with the provisions of GB 18613. In run time is greater than 3000h, the load factor is greater than 60% of the motor should be used to meet the energy efficiency targets Motor GB 18613 in the energy-saving evaluation values.