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

中华人民共和国国家标准

GB/T 19490-2013

Replace GB/T 19490-2003

Water source (ground-source) heat pumps

水 (地) 源热泵机组

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Foreword

This standard is drafted according to rules given by GB/T 1.1-2009.

This standard has replaced GB/T 19049-2003 *Water-source heat pumps* and the major technical changes are the following compared with GB/T 19049-2003:

- Added the “surface water type” in type;
- Changed the name of underground loop type into “buried pipe type
- Changed the 5 °C, that is the temperature difference between inlet water and outlet water beside the heat source under working condition of hot and cold water models, into the combination of outlet water temperature and water flow;
- Changed the unit from grade eight to grade two according to cold classification;’
- Changed the working condition and determined the working condition of centrifugal units and volumetric units separately;
- Added the annual coefficient of performance (ACOP) as the energy efficiency index of heat pump unit.

This standard is proposed by China Machinery Industry Federation.

This standard is under the jurisdiction of China technical standardization committee of refrigeration and air conditioning equipment (SAC/TC 238).

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Previous versions that this standard replaces are as follows:

—GB/T 19409—2003.

Water source (ground-source) heat pumps

1 Scope

This standard specifies the terms and definitions, types and basic parameters, requirements, test methods, inspection rules, marking, packaging, transport and storage of water source (ground-source) heat pumps ((hereinafter referred to as “the unit”).

This standard applies to water source heat pumps that uses electrical mechanical compression refrigeration system and takes the water circulating in buried pipes or water in wells, lakes, rivers and oceans or sewage and industrial waste or water in common pipelines as cold (hot) source.

2 Normative references

Following documents are indispensable for application of this document. For the dated documents so quoted, only dated versions apply to this document. For the undated documents so quoted, the latest versions (including all modification sheets) apply to this document.

GB/T 191 Packaging - Pictorial marking for handling of goods

GB/T 3785 - 1983 Electric,sonic properties and measuring methods for sound level meters

GB 4706.32 Safety of household and similar electrical appliances—Particular requirements for heat pumps,air-conditioner and dehumidifier

GB/T 5226.1 Electrical equipment of industrial machines. Part 1: General requirements

GB/T 6388 Transport package shipping mark

GB/T 10870 - 2001 The methods of performance test for positive displacement & centrifugal water-chilling units and heat pump

GB/T 13306 Plates

GB/T 18430.1-2007 Water chilling (heat pump) packages using the vapor compression cycle--Household and similar water chilling (heat pump) packages

GB/T 17758—2010 Unitary air conditioners

GB/T 18836-2002 Ducted air-conditioning (heat pump) units

GB 25131 Safety requirements for water chillers(heat pump) using the vapor compression cycle



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