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**NATIONAL STANDARD OF THE
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GB/T 29466-2023

Plate heat exchanger unit

板式热交换器机组

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Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	2
4 Type, model and basic parameters	3
5 Technical Requirements	5
6 Manufacturing and Assembly	13
7 Inspection method	15
8 Labeling, packaging, transportation and storage	16
23 Reference	26

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: This document replaces GB/T 29466-2012 "Plate Heat Exchanger Units": Compared with GB/T 29466-2012, except for structural adjustment and Apart from editorial changes, the main technical changes are as follows:

- a) The type of heat exchange equipment applicable to the unit has been added, and other units such as welded plate heat exchangers and shell-and-tube heat exchangers can be used for reference (see Chapter 1);
- b) Added the term and definition of "intelligent heat exchanger unit" (see 3:2);
- c) The energy efficiency level requirements for motors of plate heat exchangers, circulation pumps, and make-up water pumps have been added (see 5:3:2, 5:4:3, and 5:5:7);
- d) Added a schematic diagram of a typical unit (see Figure 1);
- e) The relevant regulations on the serialization of the unit have been added, and the type, basic parameters and models have been clarified (see 4:1~4:3);
- f) Added manufacturer-defined content in the product model representation method (see Figure 2);
- g) Increased the relevant regulations on the design and selection of key components (see 5:1);
- h) Changed the type of requirements in some clauses, and arranged the structural layout of unit piping, water pumps, valves and other components without affecting safety: The

centered mandatory clauses are changed to recommended clauses (see 5:1:7, 5:3:4, 5:4:4, 5:5:1, 5:5:3, 5:5:4, 5:6:3, 5:6:4;:2012 Versions 5:1:4, 5:3:5, 5:4:4, 5:5:1, 5:5:3, 5:5:4, 5:6:3);

i) Added operation and maintenance technical content (see Chapter 9);

j) Changed the safety and protection functional requirements of the control cabinet (see 5:7:2, 5:7:3, 5:7:1, 5:7:2 of the:2012 edition): Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents: This document is proposed and managed by the National Standardization Technical Committee of Boilers and Pressure Vessels (SAC/TC262): This document is drafted by: Shanghai Lanbin Petrochemical Equipment Co., Ltd., Ruineng Taiyu (Shenyang) Energy Technology Co., Ltd., Shanghai Aike Sen Co., Ltd., Siping Juyuan Hanyang Plate Heat Exchanger Co., Ltd., Shandong Beichen Electromechanical Equipment Co., Ltd., Heilongjiang Province Central Energy Control Engineering Co., Ltd., Lanzhou Lanshi Heat Exchange Equipment Co., Ltd., OMEXELL (Jinan) Heat Transfer Technology Co., Ltd., Dan Foss (Anshan) Control Valve Co., Ltd., Xi'an Jiaotong University, Xi'an Thermal Power Group Co., Ltd., Gansu Lanke Petrochemical High-tech Equipment Co., Ltd: Co., Ltd., China Special Equipment Inspection and Research Institute, Langfang Xinrui Keneng Heat Exchange Equipment Co., Ltd., Machinery Industry Lanzhou Petrochemical Equipment Co., Ltd: Equipment Testing Institute Co., Ltd: The main drafters of this document: Chen Zhanyang, Zhou Wenxue, Che Shengwen, Bai Bofeng, Wang Lixin, Lu Songhai, Tang Jinshan, Liu Kai, Yan Gang, Hao Liang, Yan Haiqing, Zhao Xiaolan, Cao Honglin, Chen Zhiwei, Ren Jigang, Kong Delong, Ni Pengbo, Cao Jinjun: This document was first published in:2012, and this is the first revision:

This document will have different or further requirements in different usage occasions: This document is not limited to specific applications, both supply and demand Special equipment or designs accepted by the other party are also applicable to innovative or developed technologies: If special equipment is selected, the supplier shall clearly document the differences and provide detailed instructions: Plate heat exchanger unit

1 Scope

GB/T 29466-2023 covers the packaged plate heat exchanger unit - not the exchanger alone, but the skid that arrives with its pumps, valves, instrumentation and controls already assembled and piped. These units are the interface between a district heating network and a building, and packaging them is what allows a substation to be commissioned in a day instead of being built on site from parts. The consequence is that responsibility moves to the packager: the unit's performance depends on how the exchanger, the pumps and the control valve were matched to each other, and a badly matched skid will meet its nameplate duty at one operating point and behave poorly across the range it actually sees over a heating season. This document specifies the types, models and basic parameters, the technical requirements, manufacture and assembly, inspection methods, marking,

packaging, transport and storage, and the operation and maintenance requirements for plate heat exchanger units. Under ICS 27.060.30 and CCS J75, it is written for unit manufacturers, for the district heating utilities and building services engineers who specify and buy them, and for the inspection bodies that verify what was delivered.

This document specifies the type, model and basic parameters, technical requirements, manufacturing and assembly, inspection methods, marks, Technical content such as packaging, transportation and storage, operation and maintenance: This document is applicable to plate heat exchanger units used in the HVAC industry, and can be used as a reference for heat exchanger units in other industries: This document is applicable to plate heat exchangers (including detachable plate heat exchangers, semi-welded plate heat exchangers), brazed plate heat exchangers Heat exchanger units for heat exchange equipment, welded plate heat exchangers, shell and tube heat exchangers and other types of heat exchangers as heat exchange equipment Heat exchanger units can be used for reference:

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document: GBZ