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

GB/T 28185-2025

Replacing GB/T 28185-2011

Heat exchange unit for urban heating

城镇供热用换热机组

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Foreword

This document is in accordance with GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standard documents" Drafting of regulations.

This document replaces GB/T 28185-2011 "Heat exchange units for urban heating". Compared with GB/T 28185-2011, in addition to the structural adjustment In addition to editorial changes, the main technical content changes are as follows.

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 2011 edition);
- b) Added some terms (see 3.2, 3.3, 3.4, 3.9);
- c) The classification and model of heat exchanger units have been changed (see Chapter 4, Chapter 4 of the 2011 edition);
- d) The provisions on rated heat load of heat exchanger units have been changed (see 5.1.1, 5.1.1 of the 2011 edition);
- e) The provisions for design temperature and design pressure have been changed (see 5.1.2, 5.1.2 of the 2011 edition);
- f) The provisions on the check valve at the pump outlet have been deleted (see 5.2.4 of the

2011 edition);

g) The heat exchanger unit monitoring regulations have been changed (see 5.3, 5.3 of the 2011 edition);

h) The provisions of the communication system have been changed (see 5.4, 5.3.10 of the 2011 edition);

i) Added provisions for the selection of distributed water pumps (see 5.5.2.4);

j) The provisions for heat meters and flow meters have been changed (see 5.5.5.5, 5.4.5.5 of the 2011 edition);

k) The provisions for electric control valves have been changed (see 5.5.5.7, 5.4.5.7 of the 2011 edition);

l) Added the provisions for solenoid valves (see 5.5.5.8);

m) The provisions on piping materials have been changed (see 5.5.10.1, 5.4.10.1 of the 2011 edition);

n) Added provisions for pipe thread processing (see 5.5.10.3);

o) The provisions on pipeline welding and inspection have been modified (see 5.5.10.4, 5.4.10.4 of the 2011 edition);

p) Added provisions for anti-corrosion (see 5.6);

q) The provisions on thermal insulation have been modified (see 5.7, B.6 of the 2011 edition);

r) Added the provisions for the heat exchanger housing (see 5.8);

s) Added technical requirements for equipment and materials (see 6.2);

t) Added inspection requirements for heat exchanger housing (see 6.3);

u) The provisions on the pressure drop of heat exchanger units have been changed (see 6.5, 6.3 of the 2011 edition);

v) Added provisions on noise and vibration (see 6.8);

w) Added test methods for equipment and materials (see 7.2);

x) Added the test method for the heat exchanger housing (see 7.3);

y) The provisions on test pressure have been changed (see 7.4.3, 7.2.3 of the 2011 edition);

z) Added the content of control system interlock protection simulation test (see 7.7.9);

aa) Added the provisions of noise and vibration test methods (see 7.8);

bb) Added the requirements for simulation test of control system interlock protection before delivery (see 8.1.2);

cc) Added the process control flow diagram of the heat exchanger unit of the primary side distributed transmission and distribution system (see A.6 in Appendix A);

dd) The installation, operation and maintenance of heat exchanger units have been changed (see Appendix B, Appendix B of the 2011 edition).

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 Ministry of Housing and Urban-Rural Development of the People's Republic of China.

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This document was first published in 2011 and this is the first revision.

Heat exchanger for urban heating

1 Scope

This document specifies the classification and model, general provisions, technical requirements, test Test methods, test rules, marking, instruction manual, product certificate, packaging, transportation and storage.

This document is applicable to heating with a design pressure not exceeding 2.5 MPa, a hot water temperature not exceeding 150°C, and a steam temperature not exceeding 350°C.

Design, production and inspection of heat exchange units used in (cold) heat exchange systems.

2 Normative references

GB/T 151

GB/T 700

GB/T 706

GB/T 2518

GB 3096

GB/T 4208-2017

GB/T 5338.1

GB/T 5656

GB/T 5657

GB 5749

GB/T 7251.1

GB/T 7251.2

GB/T 7251.3

GB/T 7251.5

GB/T 7251.6

GB/T 7251.8

GB/T 7251.10

GB/T 7306.2

GB/T 8163

GB 8624-2012

GB/T 9124.1

GB/T 9125.1

GB/T 9330

GB/T 9969