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

GB/T 28199-2025

Replacing GB/T 28199-2011

Oil-filled radiator

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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 28199-2011 "Electric Oil Heater". Compared with GB/T 28199-2011, except for structural adjustments and editorial changes, In addition to the above, the main technical changes are as follows.

- Deleted the term and definition of "stable state" (see 3.2 of the 2011 edition);
- Added model naming (see 4.2);
- Changed the startup requirements and test methods (see 5.4, 6.5, 5.4, 6.4 of the 2011 edition);
- Deleted the surface temperature requirements and test methods (see 5.5 and 6.5 of the 2011 edition);
- Deleted the heating time requirements and test methods (see 5.6 and 6.6 of the 2011 edition);

- Added the requirements for surface surrounding temperature rise and test methods (see 5.5, 6.6, Appendix B);
- Added the requirements for surface surrounding temperature rise time and test methods (see 5.6, 6.7);
- Added standby power requirements and test methods (see 5.7, 6.8);
- Changed the effective power requirements and test methods (see 5.8, 6.9, 5.8, 6.8 of the 2011 edition);
- Changed the impulse current requirements and test methods (see 5.10, 6.11, 5.10, 6.10 of the 2011 edition);
- Added noise requirements for appliances with sleep mode (see 5.11);
- Changed the safe service life requirements and test methods (see 5.14, 6.15, 5.14, 6.14 of the 2011 edition);
- Added mechanical performance requirements and test methods for casters (see 5.15, 6.16);
- Changed the sealing performance test method (see 5.13, 5.12 of the 2011 edition);
- The durability test method has been changed (see 5.14, 5.13 of the 2011 edition);
- Changed the routine inspection items (see Table 3, Table 2 of the 2011 edition);
- Changed the marking requirements (see 8.1, 8.1 of the 2011 edition);
- Changed the instructions for use requirements (see 8.2, 8.2 of the 2011 edition);
- Changed the packaging requirements (see 8.3, 8.3 of the 2011 edition);
- Changed the description of the climate laboratory (see Appendix C, Appendix A 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 China Light Industry Federation.

This document is under the jurisdiction of the National Technical Committee for Standardization of Household Electrical Appliances (SAC/TC46).

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The previous versions of this document and the documents it replaces are as follows.

- First published in 2011 as GB/T 28199-2011;
- This is the first revision. Electric oil heater

1 Scope

This document defines the terms and definitions of oil heaters for household and similar purposes (hereinafter referred to as "oil heaters"), and specifies the classification, requirements, inspection and The test rules, marking, packaging, transportation and storage requirements are described, and the corresponding test methods are described.

This document applies to single-phase appliances with a rated voltage not exceeding 250V and other appliances with a rated voltage not exceeding 480V, used in households and similar places.

Various types of portable, fixed and standing oil heaters are used.

This document does not apply to.

- Oil heater installed in the building structure;
- Oil radiators designed for industrial use;
- Oil heaters intended for use in special environments where corrosive or explosive gases (such as dust, steam or methane) are often produced.

Note. Other liquid-filled heaters other than oil-filled heaters refer to this document.

2 Normative references

GB/T 1019

GB/T 2421-2020

GB/T 2423.17

GB/T 2828.1

GB/T 4214.1-2017

GB/T 4706.1

GB/T 4706.23

GB/T 5296.2

GB/T 15470-2002

GB/T 21097.1

GB/T 35758-2017

3 Terms and definitions

The terms and definitions defined in GB/T 4706.1, GB/T 4706.23, GB/T 15470-2002 and the following apply to this document.

3.1 Oil-filled radiator

The heat transfer oil sealed in the heat sink cavity is heated by the electric heating element, and then the heat is dissipated by the heat sink and/or its shell. A liquid-filled heater.

Note. Heat transfer oil is a special oil with good thermal stability used for indirect heat transfer.