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**NATIONAL STANDARD OF THE
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GB/T 35550-2017

Freight thermal containers -- Remote condition monitoring

保温集装箱 远程状态监控

(English Translation)

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Reference

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to the use of ISO 10368:2006 "insulated container remote status monitoring." this standard has made the following editorial changes.

- a) For the convenience of use, the title adjustments have been made to 5.2.1;
- b) Figure 2, Figure 7, Figure 8, Figure 21, Figure 22, Figure 23, Table 7, Table 18, and 5.4.10, with obvious editorial errors in the source text,
- 5.5.10 The title has been modified;
- c) For the sake of convenience, some of the diagrams retain part of the original English form. Figure 3 retains more English.

This standard is proposed and managed by the National Container Standardization Technical Committee (SAC/TC6).

Introduction

The issuing authority of this document draws attention to the fact that, when the statement is in compliance with this document, it may involve low-rate and high-rate systems as referred to in 5.4 and 5.5.

Use of related patents.

The issuing agency of this document has no position on the authenticity, validity and scope

of the patent.

The patent holder has assured the issuing agency of this document that he is willing to work with any applicant on reasonable and non-discriminatory terms and conditions.

Negotiate on licensing of patents. The description of the patent holder has been filed with the issuing agency of this document. Related information can be passed below Contact information is obtained.

For low-rate systems, you can get information from the following companies.

Patent holder. ThermoKing Corporation, Address.

314W90thStreetMinneapolis,Minnesota55420USA for high-speed systems, information can be obtained from the following companies.

Patent Holder. AdaptiveNetworksIncorporated Address. 1505

CommonwealthAve.Suite30Brighton, Massachusetts02135USA Please note that in addition to the above patents, some of the contents of this document may still involve patents. The issuing agency of this document does not undertake to identify these Lee's responsibility.

When the international standard corresponding to this document is revised as the second edition, the material related to the RCD/controller interface has been deleted due to its Line interface has nothing to do. In addition, the data recording format has been omitted in part because it is not used by the industry. Other aspects, in the international standards Based on the first edition, minor additions, deletions, and corrections were made as needed.

Insulation container remote status monitoring

1 Scope

This standard stipulates the information and interface requirements for the remote monitoring of thermal insulation containers so that the central monitoring station can be used by carriers or terminals.

The control system is capable of connecting and exchanging information with remote communication devices manufactured by different manufacturers and configured by other carriers or terminals.

The data recording format and message protocol covered by this standard are applicable to all existing data transmission technologies and also applicable to all ISO standards.

Future technologies for quasi-compatible systems.

Chapter 4 of this standard specifies the performance requirements for a remote monitoring system for thermal insulation containers. Chapter 5 specifies the compatibility requirements for the system. except Unless otherwise specified, all insulation container remote monitoring systems shall comply with the provisions of the various parts of this standard.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. For undated references, the latest version (including all amendments) applies to this document.

GB/T 7392-1998 Series 1. Technical requirements and test methods for containers Thermal insulation containers (idt ISO 1496-2:1996) Information on ISO 9711-2 container ships Part 2: Telecontainers-Information related to containers on board vessels-Part 2: Telex data transmission)

3 Terms and Definitions

The following terms and definitions apply to this document.

Remote Communication Devices remote communications device; RCD Part of the refrigerator, using the distribution system of the refrigerator as a data transmission medium, interacts with the central monitoring system (CMCS).

Note 1: See Figure 1 and Figure 2.

Note 2: There are two different types of RCD.

- a) sRCD (Discrete Telecommunication Equipment) (see 3.9);
- b) iRCD (Integrated Telecommunication Equipment) (see 3.10).

Central monitoring system central monitoring and control system; CMCS Consists of hardware and software to monitor one or more remote communication devices (RCDs).

Note: A typical system includes at least.

- a) operation interface;
- b) Main Supervisor (MMU);
- c) Power line data connection equipment, such as a multi-rate central controller (MDCU).

Master monitor master monitoring unit; MMU A central processor, similar to a computer that contains specific hardware and software, controls the entire remote status monitoring system.

Note: This is an interface between the operator and the network.