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

GB/T 28561-2023

Replacing GB/T 28561-2012

**Electrical installation in ships - Automation, control and
instrumentation**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document replaces GB/T 28561-2012 "Ship Electrical Equipment Control and Measuring Instruments" and is consistent with GB/T 28561-2012

In comparison, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

---Changed the terms and definitions in Chapter 3 (see Chapter 3, Chapter 3 of the.2012 edition);

---Added general requirements (see 5.1);

---Added requirements for water level detectors on bulk carriers (see 8.2.4);

---Changed the requirements for alarm systems (see 8.4, 8.5 of the.2012 version);

---Changed the requirements for special equipment (see Chapter 9, Chapter 9 of the.2012 edition);

---Added requirements for bilge systems (see 9.2);

---Added power management system requirements (see 9.4);

---Changed the requirements for public address systems on passenger ships (see 9.10, 9.9 in the.2012 edition);

---Changed the requirements for computer-based systems (see Chapter 10, Chapter 10 of the.2012 edition);

--- Changed the additional requirements for periodically unattended machinery spaces or reducing the number of people on duty (see Chapter 11,.2012 edition

Chapter 11);

---Deleted the specific requirements for fixed fire detection and fire alarm systems (see 9.1 of the 2012 edition).

This document is equivalent to IEC 60092-504:2016 "Ship Electrical Equipment Part 504:Automation, Control and Measuring Instruments".

This document has made the following minimal editorial changes.

---Modify the standard name to "Ship Electrical Equipment Automation, Control and Measuring Instruments".

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the general requirements, environmental type test parameters, design, and structure of automation, control and measuring instruments for ship electrical equipment.

and materials, installation and ergonomics, special equipment, computing systems, periodically unattended machinery spaces or additional requirements for reduced personnel on duty.

requirements, debugging and testing and documentation.

This document applies to the design, production and use of automation, control and measuring instruments for ship electrical equipment.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

GB/T 7358-1998 General design principles for ship electrical equipment systems (IEC 60092-201.1994, IDT)

GB/T 17626.5-2019 Electromagnetic compatibility testing and measurement technology surge (impact) immunity test (IEC 61000-4-5.

2014, IDT)

Tests-TestA.Cold)

Note. GB/T 2423.1-2008 Environmental testing of electrical and electronic products Part 2.Test methods Test A. Low temperature (IEC 60068-2-1.2007, IDT)

B.Dryheat)

Note. GB/T 2423.2-2008 Environmental testing of electrical and electronic products Part 2.Test method Test B. High temperature (IEC 60068-2-2.2007, IDT)

Note. GB/T 2423.10-2019 Environmental testing Part 2.Test method Test Fc. Vibration (sinusoidal) (IEC 60068-2-6.2007, IDT)

IEC 60068-2-30 Environmental testing Part 2.Test test Db. Humid heat cycle (12h 12h cycle) [Environ-

Note. GB/T 2423.4-2008 Environmental testing of electrical and electronic products Part 2.Test method Test Db. Alternating damp heat (12h 12h cycle)

(IEC 60068-2-30.2005,IDT)

IEC 60068-2-52 Environmental testing Part 2.Test test Kb. Salt spray, alternating (sodium chloride solution) [Environmental

Note. GB/T 2423.18-2021 Environmental testing Part 2.Test method Test Kb. Salt spray, alternating (sodium chloride solution) (IEC 60068-2-52.

2017,IDT)

Note. GB/T 6994-2006 Definition and general provisions for ship electrical equipment (IEC 60092-101.2002, IDT)