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CCS U61



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

GB/T 14548-2025

Replacing GB/T 14548-1993

General specification for marine semiconductor convertors

船用半导体变流器通用技术条件

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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 14548-1993 "General Technical Specifications for Marine Semiconductor Converters" and is consistent with GB/T 14548-1993. In addition to structural adjustments and editorial changes, the main technical changes are as follows:

- Changed the scope of application of the document (see Chapter 1, Chapter 1 of the.1993 edition);
- Added appearance, assembly and material requirements (see
- Changed the design and structural requirements (see 4.3, 5.5 of the.1993 edition);
- Deleted the product model requirements (see 4.1 of the.1993 edition);
- Deleted the requirements on voltage symmetry, current and voltage balance, and main circuit connection mode (see 5.1.2.4, 5.2 and.1993 edition) 5.3.4);
- Changed the insulation resistance and dielectric strength requirements (see 4.4.3 and 4.4.4, 6.2.2 of the.1993 edition);
- Changed the voltage and frequency fluctuations, as well as the voltage waveform requirements (see

1 Scope

GB/T 14548-2025 is the Chinese national standard on general specification for marine semiconductor convertors, in the field of shipbuilding and marine structures. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 1 August 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 February 2026. Classification: ICS 47.020.60, CCS U61. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the requirements, inspection rules and marking, packaging, transportation and storage, and accompanying The corresponding test method is described in the machine file. This document applies to semiconductor rectifier diodes, various types of thyristors, gate turn-off thyristors (GTOs), insulated gate bipolar transistors transistors (IGBT), integrated gate-commutated thyristors (IGCT), metal-oxide-semiconductor field-effect transistors (MOSFET) and other power Design, manufacture and testing of input and output converters constructed from electronic devices.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 156 standard voltage

GB/T 762 standard current level

GB/T 1980 Standard Frequency

GB/T 2423.5-2019 Environmental testing Part

3 Terms and Definitions

The terms and definitions defined in GB/T 2900.33-2004, GB/T 3859.4-2004 and GB/T 6994-2006 apply to this document.

4.1.1 Appearance

4.1.1.1 The general markings of the converter shall be complete and the labels shall comply with the provisions of GB/T 13306.

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