

ICS 47.020.60
CCS U 60



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

GB/T 6994-2025

Replacing GB/T 6994-2006

**Electrical installation in ships - Definitions and general
requirements
(English Translation)**

Issued on: April 25, 2025

Implemented on: November 1, 2025

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Preface
1 Scope
2 Normative references
3 Terms and Definitions
4 General requirements and conditions
4.1 Overview
4.2 Applicability of this document to AC and DC
4.3 Permit conditions for substitutes and replacements
4.4 Regulation of maximum load
4.5 Additions and Changes
4.6 Environmental conditions
4.7 Materials
4.8 Power supply system characteristics
4.9 Electrical equipment in hazardous areas
4.10 Necessary measures to be taken when electrical accessories and cables are installed close to conductive material structures with different electrical potentials
4.11 Clearance and creepage distances
4.12 Insulation
4.13 Maintenance and Inspection
4.14 Enclosure protection grade
4.15 Cable entry
4.16 Precautions against vibration and mechanical shock
4.17 Installation location on board ship
4.18 Mechanical protection
4.19 Waterproof, steamproof and oilproof
4.20 Prevention of electric shock
4.21 Rotation axis
4.22 Magnetic compass
4.23 Environmental Impact
Appendix A (Informative) Environmental Conditions Guide
Reference

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 6994-2006 "Definitions and general provisions for marine electrical equipment". Compared with GB/T 6994-2006, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope of application has been changed. This document is applicable to electrical equipment with a voltage of 1000V AC and 1500V DC (see Chapter 1, 2006 Chapter 1 of the 2001 edition);
- b) The temperature table in the design parameters has been deleted (see Table 4 of the 2006 edition);
- c) Added the provisions for equipment operating ambient temperature (see 4.6.3.2);
- d) The expression of power supply system characteristics has been changed (see 4.8, 4.8 of the 2006 edition);
- e) Added provisions on pollution degree in the clauses on electrical clearance and creepage distance (see 4.11);
- f) Added clauses on environmental impact (see 4.23);
- g) The provisions on material classification tests have been deleted (see 4.28 of the 2006 edition);
- h) The appendix on the flame retardancy test of cables has been deleted (see Appendix A of the 2006 edition);
- i) The appendix on testing of wires or cable bundles under fire conditions has been deleted (see Appendix C of the 2006 edition).

This document is equivalent to IEC 60092-101:2018 "Marine electrical equipment Part 101: Definitions and general provisions".

The following minimal editorial changes were made to this document.

--- Change the name of the standard to "Definition and General Provisions for Marine Electrical Equipment".

1 Scope

This document applies to ship electrical installations.

Unless otherwise specified, the definitions and general provisions of this document also

apply to other parts of the IEC 60092 series of standards.

2 Normative references

The contents of the following documents constitute 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 7251.1-2023 Low-voltage switchgear and controlgear Part 1: General (IEC 61439-1:2020, IDT) GB/T 28561-2023 Automation, control and measuring instruments for electrical equipment in ships (IEC 60092-504:2016, IDT) IEC 60034-30-1 Rotating electrical machines Part 30-1. Efficiency classes for wire-controlled AC motors (IE code) [Rotatingelec-Note. GB/T 32891.1-2016 Efficiency classification of rotating electrical machines (IE code) Part 1: AC motors supplied by mains (IEC 60034-30-1. 2014, IDT)

Note: GB/T 3836 (all parts) Explosive atmospheres [IEC 60079 (all parts)] System design-General) Note. GB/T 7358-2025 General principles for design of marine electrical equipment systems (IEC 60092-201:2019, IDT) Note. GB/T 4208-2017 Enclosure Protection Degrees (IP Code) (IEC 60529:2013, IDT) Note. GB/T 10250-2025 Electromagnetic compatibility of marine electrical and electronic equipment Metal hull ships (IEC 60533:2015, IDT) IEC 60664-1 Insulation coordination for equipment in low-voltage supply systems Part 1: Principles, requirements and tests Note. GB/T 16935.1-2023 Insulation coordination for equipment in low-voltage power supply systems Part 1: Principles, requirements and tests (IEC 60664-1:2020, IDT) IEC 60695-11-5 Fire hazard testing - Part 11-5. Test flame needle flame test method instrument, confirmatory test safety Fire hazard testing - Part 11-5. Test flames - Needle - flame test method - Apparatus, con-Note. GB/T 5169.5-2020 Fire hazard testing for electric and electronic products Part 5: Test flame needle flame test method device, confirmation test method Methods and guidelines (IEC 60695-11-5:2016, IDT)