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

GB/T 29484.503-2025

Replacing GB/T 29484-2013

**Electrical installations in ships - Part 503: Special features - AC
supply systems with voltages in the range of above 1 kV up to
and including 36 kV**

船舶电气设备 第503部分：专辑 电压1 kV以上至不大于36 kV的交流供电系统
(English Translation)

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Appendix NA (Informative) List of National Standardization Documents Regarding the
Conformity Correspondence between IEC 60034 and IEC 60076 (15)

Reference

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 29484-2013 "Marine Electrical Equipment - Part 503: Voltage Above 1kV and Not Exceeding 15kV" Compared with GB/T 29484-2013, the main technical changes in the "AC Power Supply System" are as follows, apart from structural adjustments and editorial modifications.

- a) The scope of application of the document has been changed; the nominal voltage has been modified from 15kV to 36kV (see Chapter 1, Chapter 1 of the 2013 edition);
- b) Added relevant requirements regarding environmental conditions, system design, personnel safety, operational safety, external power integrity, and electrical and mechanical interlocks.

Find (see 4.1~4.6);

- c) The requirements for the power distribution system have been changed (see 4.7, 4.8, and 4.7 in the 2013 edition);
- d) The requirement for "low-resistance neutral grounding" has been removed (see section 3.2.2 of the 2013 version);

- e) The insulation level requirements have been changed (see 5.1, 4.4 of the 2013 edition);
- f) The requirements for electrical clearances and creepage distances have been changed (see 5.2, 4.5 of the 2013 edition);
- g) The voltage and frequency requirements have been changed (see 5.3, 4.1 of the 2013 edition);
- h) The requirement for power transformer protection has been removed (see 4.9.4 in the 2013 edition);
- i) General requirements for high-voltage equipment have been added (see 7.1);
- j) Requirements for switch and control device components have been changed (see 7.2, 5.3 and 5.4 of the 2013 edition);
- k) The requirements for generators and motors have been changed (see 7.3, 5.1 of the 2013 edition);
- l) The requirements for transformers have been changed (see 7.4, 5.2 of the 2013 edition);
- m) Increased requirements for the converter (see 7.5);
- n) The testing requirements for cables have been changed (see 7.6.4, 5.5.5 in the 2013 version);
- o) Added system testing requirements (see 7.7);
- p) Added installation requirements for high-voltage equipment (see Chapter 8).

This document is equivalent to IEC 60092-503:2021 "Electrical equipment for ships - Part 503: Electrical equipment for ships - Voltage above 1 kV and not exceeding 1 kV".

36kV AC power supply system.

The following minimal editorial changes have been made to this document.

---Added Appendix NA (Informative) "List of National Standardization Documents on the Conformity Correspondence between IEC 60034 and IEC 60076".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Marine Electrical and Electronic Equipment (SAC/TC531).

1 Scope

This document applies to AC power supply systems with voltages above 1kV but not exceeding 36kV. Other relevant requirements of IEC 60092 are also applicable.