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

GB/T 46811-2025

Marine high-power resistors

船用大功率电阻器

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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. 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). This document was drafted by the 712 Research Institute of China State Shipbuilding Corporation Limited. The main drafters of this document are. Dai Ke, Liu Xuan, Yu Liuyang, Li Junyi, Cheng Li, Guo Ronghui, and Mao Jin. Marine high power resistors

1 Scope

GB/T 46811-2025 is the Chinese national standard covering the load and braking resistors of a ship - the banks that absorb the energy of a dynamic brake or take the load during a generator test, cooled in an engine room already full of heat and built to survive salt, vibration and roll. First edition. It was issued on 31 December 2025 and has been in force since 1 July 2026, as a first edition. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the product classification, design, basic parameters, requirements, testing, inspection rules, packaging, and marking of high-power marine resistors. Transportation and storage. This document applies to marine heavy-duty motors with AC voltage below 15kV or DC voltage below 10kV, and a power range of 10kW to 5000kW. For high-power resistors (hereinafter referred to as "resistors", including resistor modules and resistor devices), the same applies to resistors above 5000kW.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 1234 High Resistance Heating Alloy

GB/T 2423.1 Environmental testing of electrical and electronic products - Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Resistive element The smallest unit of resistance made of a resistive material with a

certain resistance value. [Source: GB/T 25118-2010, 3.1, with modifications]

3.2 resistor module A single structure consisting of one or more resistive elements and element fixings or insulating parts.

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