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

GB/T 12975-2021

Replacing GB/T 12975-2008

General specification for synchronous generator in ships

船用同步发电机通用技术条件

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Foreword

This standard is in accordance with GB/T 1.1-2009 The rules given are drafted. This standard replaces GB/T 12975-2008 "General Technical Requirements for Marine Synchronous Generators". With GB/T Compared with 12975-2008, except The main technical changes besides editorial changes are as follows:

- Modified the content of the outlet location requirements (see 4.4.13, 4.4.13 in the.2008 edition);
- Modified the content of voltage regulation rate, waveform distortion and temperature rise requirements (see 4.5.3, 4.5.4, 4.5.5 and 4.5.15.1,.2008 Version 4.5.3, 4.5.4, 4.5.5 and 4.5.15.1);
- Modified the requirements of insulation resistance and inter-turn impulse withstand voltage (see 4.5.16, 4.5.18, 4.5.16, 4.5. 18);
- Added the requirements and test methods for impulse withstand voltage to ground (see 4.5.19, 5.18);
- Modified the requirements for moisture resistance and salt spray resistance (see 4.5.23, 4.5.24, 4.5.22, 4.5.24 in the.2008 edition);
- Deleted the anti-mold performance and related test requirements (see the.2008 version of 4.5.23, 5.21);

---Modified the content of vibration intensity limit and vibration resistance requirements (see 4.5.27 and 4.5.30, 4.5.27 and 4.5.30);

1 Scope

GB/T 12975-2021 is the Chinese national standard on general specification for synchronous generator in ships, 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 9 March 2021 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 October 2021. 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 standard specifies the rated power 3 kVA(

60 Hz) and below marine synchronous generators (hereinafter referred to as generators) and The technical requirements, test methods, inspection rules, classification, marking and packaging of the excitation device. This standard applies to generators and their excitation devices that are driven by internal combustion engines and used as ships and mobile and fixed offshore power stations. This standard covers generators driven by steam turbines, shaft generators and rated power greater than 3 kVA generator, also refer to use.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 191-2008 Packaging, storage and transportation pictorial signs

GB/T 755-2019 Rotating motor rating and performance

GB/T 997-2008 Classification of structure type, installation type and junction box position of rotating electric machine (IM code)

GB/T 1029-2005 Three-phase synchronous motor test method

GB/T 1958-2017 Product Geometric Technical Specification (GPS) Geometric Tolerance Testing and Verification

GB/T 1971-2006 Rotating motor terminal mark and direction of rotation

GB/T 1993-1993 Rotating electric machine cooling method

GB/T 2423.4-2008 Environmental testing of electrical and electronic products Part

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