

ICS 47.020.60
CCS U61



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

GB/T 43767.2-2024

**Shipboard shore power receiving equipment - Part 2: High
voltage shore power box (cabinet)**

船载岸电受电设备 第2部分：高压岸电箱（柜）

Issued on: March 15, 2024

Implemented on: October 1, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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 is part 2 of GB/T 43767 "Shipboard shore power receiving equipment". GB/T 43767 has been published in the following parts.

1. Low voltage shore power supply box;

2. High voltage shore power box (cabinet). Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the National Technical Committee for Standardization of Marine Electrical and Electronic Equipment (SAC/TC531). This document was drafted by: Jiangsu University of Science and Technology, Jiangsu Zhongzhi Marine Engineering Equipment Co., Ltd., China State Shipbuilding Corporation Limited Four research institutes, Jiangnan Shipyard (Group) Co., Ltd., NARI Group Co., Ltd., Water Transport Research Institute of the Ministry of Transport, China Classification Society Wuhan Standards Research Institute, Wuhan Yangtze River Ship Design Institute Co., Ltd., Suzhou Electric Science Research Institute Co., Ltd., State Grid Jiangsu Electric Power Co., Ltd., the 723rd Research Institute of China State

Shipbuilding Corporation, Shanghai Standards Research Institute of China Classification Society, Jiangsu Jianlong Electric Co., Ltd. company. The main drafters of this document are. Zhu Zhiyu, Zhou Yang, Sheng Weiqun, Gao Bo, Liu Lihong, Jiang Wengang, Ding Xiaohan, Zhi Pengfei, Yin Chunyan, Ni Kejian, He Shengli, Yang Rui, Huang Keshan, Wang Xiongfei, Li Jie, Gan Haiqing, Rui Dayong, Chen Wuyan, Huang Yibin, and Zhu Yisheng.

The shore power box is one of the most important devices in the shipboard shore power receiving device. It has the dual purpose of receiving power and transferring power. The control and protection of the system, the products involve multiple departments and industries such as ships, ports, shipping, energy, power grid, manufacturing, inspection, safety, etc., which need unified. The company uses unified standards to regulate the design, manufacture and inspection of its products to ensure safety, compatibility, applicability and improve the connection to shore power. The efficiency of shore power box is improved, which promotes the standardization of shore power box products. The technical conditions of high voltage and low voltage in shore power system are different, and there are great differences in design, manufacture, inspection and use. The specifications and standards for the construction of port shore power supply facilities are divided into two parts. high-voltage shore power system and low-voltage shore power system. GB/T 43767 is intended to consist of two parts.

1.Low voltage shore power supply box. The purpose is to specify the system nominal voltage not exceeding 1kV, rated frequency 50/60Hz, rated Classification and model marking, technical requirements, test methods, inspection rules and regulations of AC low-voltage shore power boxes with current not exceeding 1600A And packaging, transportation and storage, etc.

2.High-voltage shore power box (cabinet). The purpose is to specify the system nominal voltage exceeding 1kV and not exceeding 15kV, rated frequency Classification and model, technical requirements, test equipment and test results of AC high voltage shore power boxes (cabinets) with a frequency of 50/60Hz and a rated current not exceeding 4000A Inspection methods, inspection rules, packaging, transportation and storage, etc. Shipboard shore power receiving equipment Part

1 Scope

GB/T 43767.2-2024 specifies the high voltage shore connection box on board a ship, the equipment that receives the cable from the quay and connects it to the vessel's high voltage switchboard. It is the shipboard half of the shore power system, and it is where the difficult requirements live: the connection is made and broken by crew in the open air on a moving vessel, the two systems must be earthed and interlocked so that neither can be energised at the wrong moment, and the transfer between shore and ship supply has to happen without dropping the ship's essential services. The standard sets the composition and the ratings, then the requirements: the enclosure and its protection degree and corrosion

resistance in a marine atmosphere, the connectors and the cable handling, the earthing and equipotential bonding, the interlocking and the safety sequence for connection and disconnection, the protection, measurement and control, the insulation and clearances, the environmental and vibration requirements, and the tests. It took effect on 1 October 2024.

This document specifies the classification and model, technical requirements, test methods, inspection rules, packaging, transportation and Storage, etc. This document applies to systems with a nominal voltage exceeding 1kV and not exceeding 15kV, a rated frequency of 50/60Hz, and a rated current not exceeding Design, manufacture, inspection and application of 4000A AC high-voltage shore power box (cabinet) [hereinafter referred to as high-voltage shore power box (cabinet)].

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 191 Pictorial markings for packaging, storage and transportation

GB/T 1985-2014 High voltage AC disconnectors and earthing switches

GB/T 2423.1 Environmental testing for electric and electronic products Part

3 Ejection fuses

GB/T 16927.1-2011 High voltage test technology Part