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

GB/T 30845.1-2023

Replacing GB/T 30845.1-2014

**Plugs, socket-outlets and ship couplers for high-voltage shore
connection systems (HVSC-Systems) - Part 1: General
requirements**

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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.

This document is Part 1 of GB/T 30845 "Plugs, sockets and marine couplers for

high-voltage shore power connection systems (HVSC systems)".

GB/T 30845 has released the following parts.

---Part 1.General requirements;

---Part 2.Dimensional compatibility and interchangeability requirements for different types of marine accessories.

This document replaces GB/T 30845.1-2014 "Plugs, sockets and marine couplers for high-voltage shore power connection systems (HVSC systems)"

Part 1.General Requirements", compared with GB/T 30845.1-2014, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

---The requirements for the number of control contacts have been changed, and the number of control contacts is no longer limited (see Chapter 1);

---Changed the picture, deleted the text in the picture, and changed it to annotation (see Figure 1 and Figure 8, Figure 1 and Figure 2 of the.2014 version);

---Added graphic description table (see Figure 8, Figure 2 of the.2014 version);

---The maximum rated withstand current peak value has been changed. For electrical accessories with a rated current value of 500A, the maximum rated withstand current peak value has been revised.

Changed to 63kA (see 27.1,.2014 version of 27.1).

This document is modified to adopt IEC 62613-1.2019 "Plugs, sockets and marine couplers for high-voltage shore power connection systems (HVSC systems)"

Part 1.General requirements.

The technical differences between this document and IEC 62613-1.2019 and their reasons are as follows.

--- Added "This document specifies the structure, electrical structure and electrical requirements of plugs, sockets and marine couplers for high-voltage shore power connection systems (HVSC systems).

"Technical requirements such as gas performance and mechanical properties" to comply with the requirements of GB/T 1.1 (see Chapter 1);

---Replaced IEC 60228 with normatively quoted GB/T 3956 to adapt to my country's technical conditions and increase operability (see Section 4

Chapter, Chapter 11 and Chapter 22);

---Replaced IEC 60664-1 with normatively quoted GB/T 16935.1 to adapt to my country's technical conditions and increase operability (see

4.1);

---Replaced IEC 60529 with normatively quoted GB/T 4208 to adapt to my country's technical conditions and increase operability (see Section 7

Chapter 9.1, 12.1 and 18.3);

---Added the requirement to identify the number of this document to adapt to my country's technical requirements and increase operability (see 7.1);

---Changed the notes with requirements to the text (see 10.2);

---Replaced IEC 62271-1 with normatively quoted GB/T 11022 to adapt to my country's technical conditions and increase operability (see

19.6);

---Replaced IEC 60068-2-75 with normatively quoted GB/T 2423.55 to adapt to my country's technical conditions and increase operability

(see 23.1);

---Replaced IEC 60695-10-2 with normatively cited GB/T 5169.21 to adapt to my country's technical conditions and increase operability

(see 25.3);

---Replaced IEC 60695-2-11 with normatively quoted GB/T 5169.11 to adapt to my country's technical conditions and increase operability

(see 25.4);

---Replaced IEC 60112 with normatively quoted GB/T 4207 to adapt to my country's technical conditions and increase operability (see

25.5);

---Replaced IEC 60269-1 with normatively quoted GB/T 13539.1 to adapt to my country's technical conditions and increase operability (see

27.2);

---Replaced IEC 60269-2 with normatively quoted GB/T 13539.2 to adapt to my country's technical conditions and increase operability (see

27.2);

---Replaced IEC 60092-354 with normatively quoted GB/T 17755 to adapt to my country's technical conditions and increase operability (see

Table 8);

---Replaced IEC 62262 with normatively cited GB/T 20138 to adapt to my country's

technical conditions and increase operability (see 23.1);

---Replaced IEC /IEEE80005-1 with normatively cited GB/T 38329.1 to adapt to my country's technical conditions and increase operability

Sex (see 22.2);

---The electrical accessories with a rated current value of 500 A have been changed, and the maximum rated withstand current peak value is 63kA, which is consistent with the

The requirements of IEC /IEEE80005-1.2019 remain consistent (see 27.1).

This document has made the following editorial changes.

---Changed the editorial error in the document, changing "CTI test" to "PTI test" according to GB/T 4207 (see 25.5);

---The editorial errors in the document have been changed, and the "Figure 9 and Figure 10" cited in 27.3 have been changed to "Figure 13 and Figure 14" (see 27.3).

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

Introduction

The preparation of this document is mainly to meet the needs of GB/T 38329.1 high-voltage shore power connection system. In this document the terms plug, socket,

Marine connectors and marine input sockets are collectively referred to as electrical accessories and are used to transmit power from shore to ships docked in port.

The purpose of GB/T 38329.1 is to specify the requirements for enabling ships to connect to high-voltage shore power supply systems through shore-to-ship compatible connections.

The ship is as described in GB/T 38329.1.

The requirements of the above high-voltage shore power connection system standards adopt the electrical accessories in the GB/T 30845.2 standard leaflet. Of course, for ships

However, it may happen that the ship cannot be connected to the high-voltage shore power supply system.

Condition.

For certain types of ships, the requirements for low-voltage plugs, socket-outlets, marine connectors and marine in-sockets connected to the low-voltage shore power supply system

For information, please refer to the GB/T 11918 series of standard requirements.