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

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**Power performance assessment of electricity producing wave
energy converters**

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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 of Standardization Documents"

Drafting.

This document uses the redrafting law to amend and adopt IEC /T S62600-100.2012 "Ocean Energy Wave Energy, Tidal Energy and Other Current Energy"

Conversion device-Part 100.Evaluation of power generation performance of wave energy conversion device.

Compared with IEC /T S62600-100.2012, this document has many adjustments in structure. Appendix A lists the differences between this document and IEC /T S62600-100.2012.

IEC /T S62600-100.2012 chapter number comparison list.

Compared with IEC /T S62600-100.2012, this document has technical differences.

The vertical single line (|) of the margin position is marked, and a list of the corresponding technical differences and their reasons is given in Appendix B.

This document has made the following editorial changes.

---Change the standard name to "Evaluation of Power Generation Performance of Wave Energy Conversion Device";

---Revised the appendix "Formation of the regular power matrix" (see Appendix F).

1 Scope

This document gives the power generation performance evaluation method of the wave energy conversion device in the power generation test at the test site.

This document is applicable to all marine areas (nearshore and offshore, deep water and shallow water) that convert wave energy into electricity, and the fixed method is flexible.

A wave energy conversion device that is anchored by sex or tension chain, fixed at the bottom or fixed at the shore.

This document does not apply to.

- a) Wave energy conversion devices that do not generate electricity;
- b) Test in a pool or under a small scale of ocean conditions, all measurement results need to be extrapolated to get the ratio of the full-scale results

Example device;

- c) Resource assessment;
- d) Power quality;
- e) environmental issues;
- f) Power matrix pushed from one point to another.

This document describes the following system methods.

---Measure the power output of the wave energy conversion device under real sea conditions;

---The power matrix of the wave energy conversion device;

---The reporting convention framework for electric power output and wave energy flow input.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

GB/T 7408 Data element and exchange format information exchange date and time representation (GB/T 7408-2005, ISO 8601.

2000, IDT)

GB/T 13850 The electrical measuring transmitter that converts AC power to analog or digital signal (GB/T 13850-1998, IEC 60688.

1992, IDT)

GB/T 17625 (all parts) Electromagnetic compatibility-Limits [IEC 61000-3 (all parts)]

GB/T 20840.1 Transformer Part 1.General technical requirements (GB/T 20840.1-2010, IEC 61869-1.2007,

MOD)

GB/T 20840.3 Transformer Part 3.Supplementary Technical Requirements for Electromagnetic Voltage Transformers (GB/T 20840.3-2013,

IEC 61869-3.2011, MOD)

GB/T 27418 Measurement Uncertainty Evaluation and Expression (GB/T 27418-2017, ISO /IEC Guide98-3.2008, MOD)

GB/T 37551 Ocean energy wave energy, tidal current energy and other current energy conversion device terms (GB/T 37551-2019,

IEC 62600-1.2011, MOD)

ISO /IEC Guide 98-1.2009 Uncertainty of Measurement Part 1.Overview of Uncertainty of Measurement (Uncertaintyof

measurement-Part 1.Introductiontotheexpressionofuncertaintyinmeasurement)

EquiMar. Fair Evaluation Draft of Ocean Energy Conversion Device, Part 2, Chapter 1.A.1~1.A.5 (EquiMar. Protocols