PD IEC TS 62600-2:2019

BSI Standards Publication

Marine energy – Wave, tidal and other water current converters

Part 2: Marine energy systems – Design requirements

bsi.

National foreword

This Published Document is the UK implementation of IEC TS 62600-2:2019. It supersedes PD IEC/TS 62600-2:2016, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PEL/114, Marine energy - Wave, tidal and other water current converters.

A list of organizations represented on this committee can be obtained on request to its committee manager.

Attention is drawn to the fact that during the development of this Technical Specification, the UK committee voted against its approval.

The UK committee submitted a negative vote due to its opinion that this document does not provide extensive technical requirements for wave energy converter (WEC) or tidal energy converter (TEC) systems.

Contractual and legal considerations

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Compliance with a Published Document cannot confer immunity from legal obligations.

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FOREWORD

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- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical Specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62600-2, which is a Technical Specification, has been prepared by IEC technical committee 114: Marine energy – Wave, tidal and other water current converters.

This second edition cancels and replaces the first edition published in 2016. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) The first edition published in 2016 was based on design methodologies developed by TC88. The second edition sets forth design conditions unique to marine energy converters.

The text of this Technical Specification is based on the following documents:

Enquiry draft	Report on voting
114/306/DTS	114/322/RVDTS

Full information on the voting for the approval of this Technical Specification can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62600 series, published under the general title *Marine energy – Wave, tidal and other water current converters*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- transformed into an International Standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This part of IEC 62600 outlines minimum design requirements for marine energy converters (MECs) and is not intended for use as a complete design specification.

Any of the requirements of this document may be altered if it can be demonstrated that the overall safety of the marine energy converter is not compromised. Compliance with this document shall be done in observance of applicable regional regulations.

MARINE ENERGY – WAVE, TIDAL AND OTHER WATER CURRENT CONVERTERS –

Part 2: Marine energy systems – Design requirements

1 Scope

This document provides design requirements to ensure the engineering integrity of wave, ocean, tidal and river current energy converters, collectively referred to as marine energy converters. Its purpose is to provide an appropriate level of protection against damage from all hazards that may lead to catastrophic failure of the MEC structural, mechanical, electrical or control systems. Figure 1 illustrates the scope of this document and critical interfaces with other elements of a marine energy converter installation.

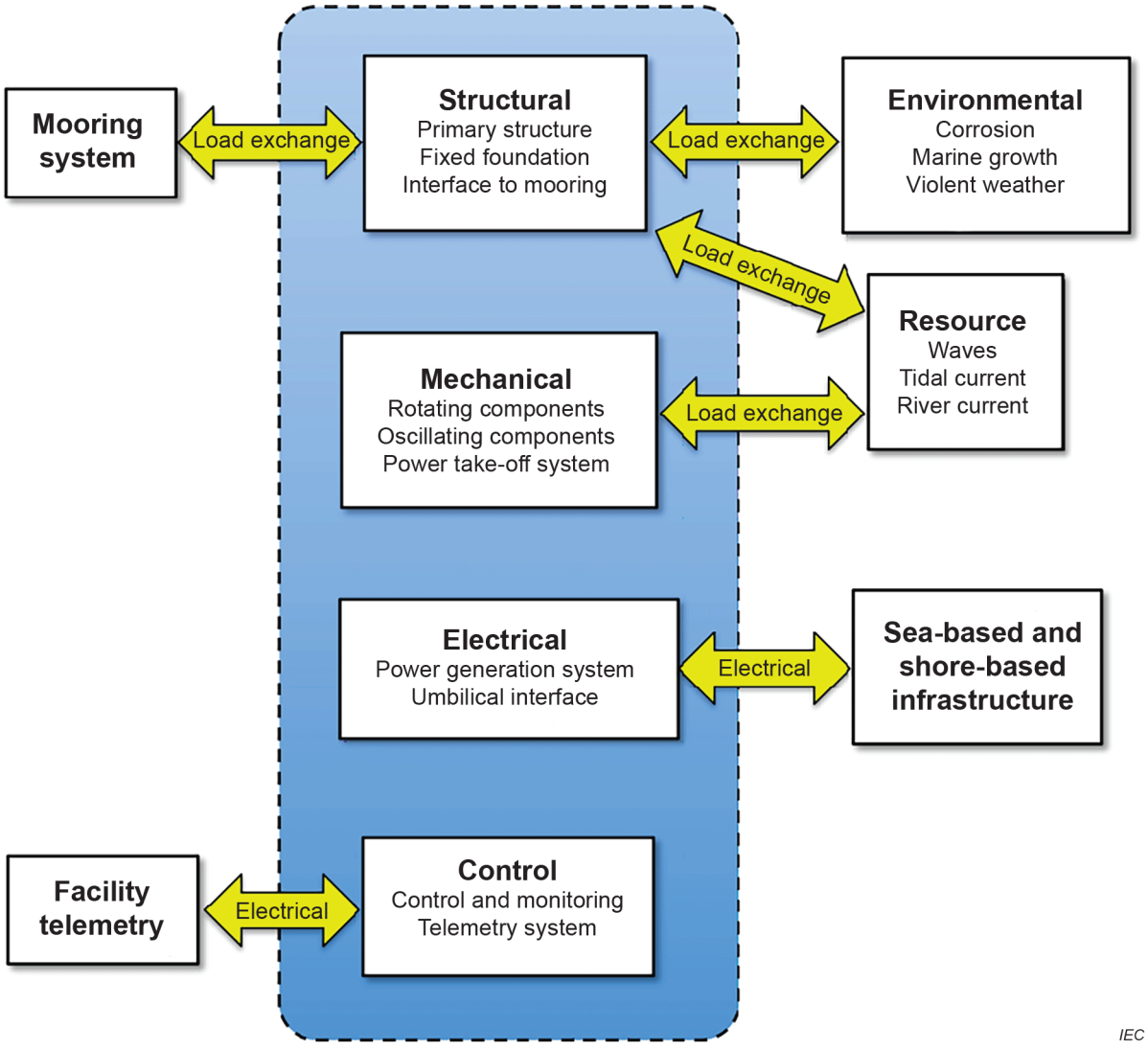

Figure 1 – Marine energy converter system boundary for IEC TS 62600-2 and interfaces

This document provides requirements for MEC main structure, appendages, seabed interface, mechanical systems and electrical systems as they pertain to the viability of the device under site-specific environmental conditions. This document applies to MECs that are either floating or fixed to the seafloor or shore and are unmanned during operational periods.