IEC 60308

Edition 3.0 2024-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Hydraulic turbines – Testing of governing systems

Turbines hydrauliques – Essais des systèmes de régulation

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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HYDRAULIC TURBINES – TESTING OF GOVERNING SYSTEMS

FOREWORD

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IEC 60308 has been prepared by IEC technical committee 4: Hydraulic turbines. It is an International Standard.

This third edition cancels and replaces the second edition published in 2005. This edition constitutes a technical revision.

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

a) adoption of parts of IEC 61362:2024 which deal with test matters;
b) introduction of new technical aspects;

The text of this document is based on the following documents:

Draft	Report on voting
4/497/FDIS	4/503/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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

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- revised.

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INTRODUCTION

The first and second editions of this document were developed to have a comprehensive description for the test of hydraulic turbine governing systems according to the corresponding state of the art. They were published independently of the guide to specification of hydraulic turbine governing systems (IEC 61362). This third edition was developed together with IEC 61362 in order to harmonize their contents and their publishing dates. Furthermore, the standards are kept open for state of the art by introducing new topics and harmonizing the structure as well as the terms and definitions for both standards.

HYDRAULIC TURBINES – TESTING OF GOVERNING SYSTEMS

1 Scope

This document covers acceptance tests and the related specific test procedures for hydraulic turbine governing systems. It can be used to fulfil following tasks:

– verification of system characteristics according to specification;
– verification of technical guarantees;
– verification of general proper functioning in the workshop and/or on site;
– assessment of the actual state of an existing governing system.

This document covers the tests for systems and devices described in IEC 61362.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60041, *Field acceptance tests to determine the hydraulic performance of hydraulic turbines, storage pumps and pump-turbines*

IEC 60545, *Guidelines for commissioning and operation of hydraulic turbines, pump-turbines and storage pumps*

IEC 61362, *Guidelines to specification of hydraulic turbine governing systems*

ISO 4406, *Hydraulic fluid power – Fluids – Method for coding the level of contamination by solid particles*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61362 apply.

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