SLOVENSKI STANDARD
SIST EN IEC 60308:2024

01-december-2024

Hidravlične turbine - Preskušanje krmilnih sistemov (IEC 60308:2024)

Hydraulic turbines - Testing of governing systems (IEC 60308:2024)

Wasserturbinen - Prüfung von Regelsystemen (IEC 60308:2024)

Turbines hydrauliques - Essais des systèmes de régulation (IEC 60308:2024)

Ta slovenski standard je istoveten z: **EN IEC 60308:2024**

ICS:

27.140	Vodna energija	Hydraulic energy engineering

SIST EN IEC 60308:2024 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60308

November 2024

ICS 27.140

Supersedes EN 60308:2005

English Version

Hydraulic turbines - Testing of governing systems (IEC 60308:2024)

Turbines hydrauliques - Essais des systèmes de régulation (IEC 60308:2024)

Wasserturbinen - Prüfung von Regelsystemen (IEC 60308:2024)

This European Standard was approved by CENELEC on 2024-10-28. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 60308:2024 E

European foreword

The text of document 4/497/FDIS, future edition 3 of IEC 60308, prepared by TC 4 "Hydraulic turbines" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60308:2024.

The following dates are fixed:

•	latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop) 2025-11-30
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow) 2027-11-30

This document supersedes EN 60308:2005 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60308:2024 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60041	-	Field acceptance tests to determine the hydraulic performance of hydraulic turbines, storage pumps and pump-turbines	EN 60041	-
IEC 60545	-	Guidelines for commissioning and operation of hydraulic turbines, pump-turbines and storage pumps	EN IEC 60545	-
IEC 61362	-	Guidelines to specification of hydraulic turbine governing systems	EN IEC 61362	-
ISO 4406	-	Hydraulic fluid power - Fluids - Method for coding the level of contamination by solid particles	-	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Hydraulic turbines – Testing of governing systems

Turbines hydrauliques – Essais des systèmes de régulation

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CONTENTS

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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

- reconfirmed,
- withdrawn, or
- revised.

IMPORTANT – The "colour inside" logo on the cover page of this document 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

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.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp