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## Vattenturbiner – Provning av reglersystem

*Hydraulic turbines –  
Testing of governing systems*

Som svensk standard gäller europastandarden EN IEC 60308:2024. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 60308:2024.

### Nationellt förord

Europastandarden EN IEC 60308:2024

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60308, Third edition, 2024 - Hydraulic turbines - Testing of governing systems**

utarbetad inom International Electrotechnical Commission, IEC.

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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)

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Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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

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- latest date by which the national standards conflicting with the (dow) 2027-11-30 document have to be withdrawn

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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](http://www.cencenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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	-	-

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



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**Hydraulic turbines – Testing of governing systems**

**Turbines hydrauliques – Essais des systèmes de régulation**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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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*