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Electromechanical equipment guidance for small hydroelectric installations

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/26

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EUROPEAN STANDARD

**EN IEC 61116**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2025

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Supersedes EN 61116:1994

English Version

**Electromechanical equipment guidance for small hydroelectric  
installations  
(IEC 61116:2025)**

Recommandations pour l'équipement électromécanique  
des petits aménagements hydroélectriques  
(IEC 61116:2025)

Anleitung für die elektromechanische Ausrüstung von  
kleinen Wasserkraftanlagen  
(IEC 61116:2025)

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**EN IEC 61116:2025 (E)****European foreword**

The text of document 4/510/CDV, future edition 2 of IEC 61116, prepared by TC 4 "Hydraulic turbines" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61116:2025.

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IEC 60034-2-1:2024	NOTE Approved as EN IEC 60034-2-1:2024 (not modified)
IEC 60034-5:2020	NOTE Approved as EN IEC 60034-5:2020 (not modified)
IEC 60041:1991	NOTE Approved as EN 60041:1994
IEC 60076-1:2011	NOTE Approved as EN 60076-1:2011 (not modified)
IEC 60193:2019	NOTE Approved as EN IEC 60193:2019 (not modified)
IEC 60308:2024	NOTE Approved as EN IEC 60308:2024 (not modified)
IEC 60545:2021	NOTE Approved as EN IEC 60545:2021 (not modified)
IEC 60609-1	NOTE Approved as EN 60609-1
IEC 60609-2:1997	NOTE Approved as EN 60609-2:1999 (not modified)
IEC 60831-1:2014	NOTE Approved as EN 60831-1:2014 (not modified)
IEC 60871-1:2014	NOTE Approved as EN 60871-1:2014 (not modified)
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IEC 61869-2:2012	NOTE Approved as EN 61869-2:2012 (not modified)
IEC 61869-3:2011	NOTE Approved as EN 61869-3:2011 (not modified)

**EN IEC 61116:2025 (E)**

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IEC 62271-100:2021	NOTE	Approved as EN IEC 62271-100:2021 (not modified)
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IEC 62271-102:2018/AMD1:2022	NOTE	Approved as EN IEC 62271-102:2018/A1:2022 (not modified)
ISO 80000-4:2019	NOTE	Approved as EN ISO 80000-4:2019 (not modified)



IEC 61116

Edition 2.0 2025-09

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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**Electromechanical equipment guidance for small hydroelectric installations**

**Recommandations pour l'équipement électromécanique des petits  
aménagements hydroélectriques**

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**Electromechanical equipment guidance for  
small hydroelectric installations**

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IEC 61116 has been prepared by IEC technical committee 4: Hydraulic turbines. It is an International Standard.

This second edition cancels and replaces the first edition published in 1992. This edition constitutes a technical revision.

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

- a) harmonization of scope with IEC 62006;
- b) introduction of new technical aspects;
- c) overall editorial revision.

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The text of this International Standard is based on the following documents:

Draft	Report on voting
4/510/CDV	4/521A/RVC

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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## 1 Scope

This document is used as a guidance that applies to hydroelectric installations containing impulse or reaction turbines with unit power up to about 15 MW and reference diameter of about 3 m. These figures do not represent absolute limits.

This document deals only with the direct relations between the purchaser or the consulting engineer and the supplier. It does not deal with civil works, administrative conditions or commercial conditions.

This document is intended to be used by all concerned in the installation of electromechanical equipment for small hydroelectric plants.

This document, based essentially on practical information, aims specifically at supplying the purchaser of the equipment with information which will assist him with the following:

- preparation of the call for tenders;
- evaluation of the tenders;
- contact with the supplier during the design and manufacture of the equipment;
- quality control during the manufacture and shop-testing;
- follow-up of site erection;
- commissioning;
- acceptance tests;
- operation and maintenance.

The document comprises the following:

- a) general requirements for the electromechanical equipment of small hydroelectric installations;
- b) technical specifications for the electromechanical equipment, excluding its dimensioning and standardization;
- c) requirements for acceptance, operation and maintenance.

Bearing in mind the type of installation considered, the relevant documents are intended to be as simple as possible but to satisfactorily define the particular operation conditions. Over-specification is harmful to the economy of the project.

This document does not cover the initial stage of investigations, that is to say the preliminary study and feasibility study. Neither does it deal with the economic study concerning the supply and demand of energy.

To conclude, the document does not replace the applicable engineering studies for the selection, design, manufacture, installation and testing of the equipment. It is intended only to make the purchaser aware of the important points and data to be furnished, specified and kept in due consideration in the construction of small hydroelectric plants.

## 2 Normative references

There are no normative references in this document.

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