BS EN 62006:2011

# Hydraulic machines — Acceptance tests of small hydroelectric installations

BS EN 62006:2011 BRITISH STANDARD

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This British Standard is the UK implementation of EN 62006:2011. It is identical to IEC 62006:2010.

The UK participation in its preparation was entrusted to Technical Committee MCE/15, Hydraulic turbines.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments issued since publication

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## **EUROPÄISCHE NORM**

February 2011

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English version

# Hydraulic machines Acceptance tests of small hydroelectric installations (IEC 62006:2010)

Machines hydrauliques -Essais de réception des petits aménagements hydroélectriques (CEI 62006:2010) Hydraulische Maschinen -Abnahmemessungen an Kleinwasserkraft-Anlagen (IEC 62006:2010)

This European Standard was approved by CENELEC on 2011-01-02. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

## **CENELEC**

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

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#### **Foreword**

The text of document 4/254/FDIS, future edition 1 of IEC 62006, prepared by IEC TC 4, Hydraulic turbines, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62006 on 2011-01-02.

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

The following dates were fixed:

 latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement

(dop) 2011-10-02

 latest date by which the national standards conflicting with the EN have to be withdrawn

(dow) 2014-01-02

Annex ZA has been added by CENELEC.

#### **Endorsement notice**

The text of the International Standard IEC 62006:2010 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60994	NOTE	Harmonized as EN 60994.
IEC 61116	NOTE	Harmonized as EN 61116.
IEC 61260	NOTE	Harmonized as EN 61260.
ISO 4373	NOTE	Harmonized as EN ISO 4373.
ISO 5167 series	NOTE	Harmonized in EN ISO 5167 series (not modified)

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## (normative)

# Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	Year	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60041	1991	Field acceptance tests to determine the hydraulic performance of hydraulic turbines, storage pumps and pump-turbines	EN 60041	1994
IEC 60193	-	Hydraulic turbines, storage pumps and pump-turbines - Model acceptance tests	EN 60193	-
IEC 60308	-	Hydraulic turbines - Testing of control systems	EN 60308	-
IEC 60609	Series	Hydraulic turbines, storage pumps and pump-turbines - Cavitation pitting evaluation	EN 60609	Series
IEC 60651	-	Sound level meters	EN 60651	-
IEC 61362	-	Guide to specification of hydraulic turbine control systems	EN 61362	-
ISO 1680	-	Acoustics - Test code for the measurement of airborne noise emitted by rotating electrical machines	EN ISO 1680	-
ISO 1940-1	2003	Mechanical vibration - Balance quality requirements for rotors in a constant (rigid) state - Part 1: Specification and verification of balance tolerances	-	-
ISO 3746	-	Acoustics - Determination of sound power levels of noise sources using sound pressure Survey method using an enveloping measurement surface over a reflecting plane	EN ISO 3746 -	-
ISO 4412	Series	Hydraulic fluid power - Test code for determination of airborne noise levels	-	-
ISO 5168	-	Measurement of fluid flow - Estimation of uncertainly of a flow-rate measurement	-	-
ISO 7919-5	-	Mechanical vibration - Evaluation of machine vibration by measurements on rotating shafts Part 5: Machine sets in hydraulic power generating and pumping plants		-
ISO 10816-3	-	Mechanical vibration - Evaluation of machine vibration by measurements on non-rotating parts - Part 3: Industrial machines with nominal power above 15 kW and nominal speeds between 120 r/min and 15 000 r/min when measured in situ	-	-

EN 00000 0044

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PublicationYearTitleEN/HDYearANSI/IEEE 810-Hydraulic Turbine and Generator Integrally<br/>Forged Shaft Couplings and Shaft Runout<br/>Tolerances--

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