



NSAI
Standards

Irish Standard
I.S. EN 50193-1:2016

Electric instantaneous water heaters - Methods for measuring the Performance - Part 1: General requirements

I.S. EN 50193-1:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

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National Foreword

I.S. EN 50193-1:2016 is the adopted Irish version of the European Document EN 50193-1:2016, Electric instantaneous water heaters - Methods for measuring the Performance - Part 1: General requirements

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

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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EUROPEAN STANDARD

EN 50193-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2016

ICS 91.140.65

Supersedes EN 50193-1:2013

English Version

Electric instantaneous water heaters - Methods for measuring the Performance - Part 1: General requirements

Chauffe-eau électriques instantanés - Partie 1: Exigences
générales

Elektro-Durchfluss-Wassereerwärmer - Prüfverfahren zur
Messung der Gebrauchseigenschaften - Teil 1: Allgemeine
Anforderungen

This European Standard was approved by CENELEC on 2016-05-23. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

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European foreword

This document (EN 50193-1:2016) has been prepared by CLC/TC 59X "Performance of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-05-23
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2019-05-23

This document supersedes EN 50193-1:2013.

EN 50193-1:2016 includes the following significant technical changes with respect to EN 50193-1:2013:

- Alignment of the terms and formulas with those detailed in Commission communication in the framework of the implementation of Commission Regulation (EU) No 814/2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for water heaters and hot water storage tanks and of Commission Delegated Regulation (EU) No 812/2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of water heaters, hot water storage tanks and packages of water heater and solar device (2014/C 207/03).
- Clarification of the Smart Control Factor and the issues surrounding its application for Electric Instantaneous Water Heaters.
- Updates to the references and bibliography.
- Addition of an informative annex for alternative test methods under development.
- Addition of Annexes ZZA and ZZB.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZA and ZZB, which are integral parts of this document.

1 Scope

This European Standard applies to **electric instantaneous water heaters** for domestic hot water heating for household and similar applications, which show both of the following characteristics:

- fulfilling at least one load pattern from Annex A;
- heating up to temperatures below the boiling temperature.

This European Standard specifies terms, definitions and measurement methods for the assessment of energy efficiency.

This European Standard does not take into account requirements regarding the safety of the appliances.

2 Normative references

The following documents, in whole or in part, are normatively reference in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 22768-1, *General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1)*

EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation (ISO 228-1)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

instantaneous water heater

appliance intended to heat water while it flows through the appliance

3.1.1

electric instantaneous water heater

electric powered **instantaneous water heater**

3.1.2

closed instantaneous water heater

instantaneous water heater intended to operate at the pressure of the water system, the flow of water being controlled by one or more valves in the outlet system

3.1.3

open-outlet instantaneous water heater

instantaneous water heater in which the flow of water is controlled by a valve in the inlet pipe, there being no valve in the outlet pipe

3.1.4

hydraulic instantaneous water heater

instantaneous water heater each of whose heating elements are switched on or off, depending on the water flow rate or water pressure

3.2

temperature selector

actuator which presets the temperature set point value of the water outlet and which can be adjusted by the user

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