

Elektrilised kiir-veekeetjad. Osa 1: Üldnõuded

Electric instantaneous water heaters - Part 1: General requirements

This document is a preview generated by EVS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 50193-1:2013 sisaldab Euroopa standardi EN 50193-1:2013 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 22.03.2013.</p> <p>Standard on kättesaadav Eesti Standardikeskusest.</p>	<p>This Estonian standard EVS-EN 50193-1:2013 consists of the English text of the European standard EN 50193-1:2013.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.</p> <p>Date of Availability of the European standard is 22.03.2013.</p> <p>The standard is available from the Estonian Centre for Standardisation.</p>
--	---

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.140.65

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

English version

**Electric instantaneous water heaters -
Part 1: General requirements**

Chauffe-eau électriques instantanés -
Partie 1: Exigences générales

Elektrische Durchfluss-
Durchflusserwärmer -
Teil 1: Allgemeine Anforderungen

This European Standard was approved by CENELEC on 2012-11-05. 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.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Contents

	Page
Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 General test conditions	6
4.1 Test conditions and tolerances on the test results	6
4.2 Number of appliances to be tested	7
4.3 General measurement conditions	7
4.4 Test setup	7
5 Energy efficiency	7
5.1 Test methods	7
5.2 Setpoints	8
5.3 Static efficiency	8
5.4 Start up losses	8
5.5 Smart control compliance	9
5.6 Calculation of energy demand	9
5.7 Correction factor	9
Annex A (normative) Load pattern	10
Annex B (normative) Test setup	14
Bibliography	18

Foreword

This document (EN 50193-1:2013) 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) 2013-11-05
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2015-11-05

This document supersedes EN 50193:1997.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

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

preview generated by EVS

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 referenced 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 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**, independent from the kind of the controller system
- 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 can be switched on or off, depending on the water flow rate or water pressure
- 3.1.5 instantaneous water heater with manual variable power setting**
instantaneous water heater where the heating power can be manually and variably set by the user
- 3.1.6 electronically controlled instantaneous water heater**
instantaneous water heater with electronically controlled heating elements, where the outlet water temperature can be controlled by varying the power consumed by the heating elements without affecting the flow rate or mixing with cold water. The outlet water temperature is not thermostatically regulated and will change as a result in a change in flow or inlet water temperature (no feedback from outlet temperature and/or flow rate)