

**VEEVÕRGUGA ÜHENDATUD ELEKTRISEADMED.  
TAGASIVOOLU JA VOOLIKUTE TÕRKE VÄLTIMINE**

**Electric appliances connected to the water mains -  
Avoidance of backsiphonage and failure of hose-sets  
(IEC 61770:2008 + IEC 61770:2008/A1:2015, modified)**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN 61770:2009+A11+A1+A12:2022 sisaldab Euroopa standardi EN 61770:2009 ja selle muudatuste A11:2018, A1:2019 ja A12:2022, ja paranduse AC:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 61770:2009+A11+A1+A12:2022 consists of the English text of the European standard EN 61770:2009 and its amendments A11:2018, A1:2019 and A12:2022; and its corrigendum AC:2011.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.  Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.05.2009, muudatused A11 18.05.2018, A1 26.07.2019 ja A12 10.06.2022.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.  Date of Availability of the European standard is 07.05.2009, for A11 18.05.2018, A1 26.07.2019 and A12 10.06.2022.
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ICS 91.140.60; 97.030

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English Version

**Electric appliances connected to the water mains - Avoidance of  
backsiphonage and failure of hose-sets (IEC 61770:2008 + IEC  
61770:2008/A1:2015, modified)**

Appareils électriques raccordés au réseau d'alimentation en  
eau - Exigences pour éviter le retour d'eau par siphonnage  
et la défaillance des ensembles de raccordement (CEI  
61770:2008 + IEC 61770:2008/A1:2015 , modifiée)

Elektrische Geräte zum Anschluss an die  
Wasserversorgungsanlage - Vermeidung von Rücksaugung  
und des Versagens von Schlauchsätzen (IEC 61770:2008 +  
IEC 61770:2008/A1:2015 , modifiziert)

This European Standard was approved by CENELEC on 2009-04-22. Amendment A11 was approved by CENELEC on 2017-12-25. Amendment A1 was approved by CENELEC on 2015-10-05. Amendment A12 was approved by CENELEC on 2021-11-15. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard and its amendments the status of a national standard without any alteration.

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

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

## Foreword

The text of document 61/3647/FDIS, future edition 2 of IEC 61770, prepared by IEC TC 61, Safety of household and similar electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61770 on 2009-04-22.

This European Standard supersedes EN 61770:1999 + A1:2004 + A2:2006 + corrigendum August 2007.

The principal changes in EN 61770:2009 as compared with EN 61770:1999 are as follows (minor changes are not listed):

- normative references are updated;
- some notes have been converted to normative text (3.10, 5.2, 6.3, 7.2 and Annex A);
- the type of petroleum spirit has been specified (9.3).

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) 2010-05-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2012-05-01

NOTE The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

Annex ZA has been added by CENELEC.

## Endorsement notice

The text of the International Standard IEC 61770:2008 was approved by CENELEC as a European Standard without any modification.

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**A11 Amendment A11 European foreword**

This document (EN 61770:2009/A11:2018) has been prepared by CLC/TC 61 "Safety of household and similar electrical appliances" in collaboration with CEN/TC 164 "Water Supply".

It was generated to overcome occurring uncertainties in checking the appliances since extension of the scope for all EN 60335-2 parts having the necessity to be connected to the water mains.

Significant changes are the adoption of the EN 1717 approach of evaluating the risk categories and providing provisions / backflow prevention devices to realise prevention against the evaluated risks and to offer a choice of relevant backflow prevention devices which are already described by separate EN-Standards but with easing the requirements at points, where definitions which are not safety-relevant for the use in Electrical Appliances connected to the water mains prohibit industrialised realisation. Examples are requirements regarding size, stability and markings which are well-grounded for the use in house installation, but not for the realisation inside an electric appliance.

The following dates are fixed:

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There are no special national conditions causing a deviation from this amendment.

There are no national deviations from this amendment.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 61770:2008 are prefixed "Z". A11

## **A1** Amendment A1 European foreword

This document (EN 61770:2009/A1:2019) consists of the text of IEC 61770:2008/A1:2015 prepared by IEC/TC 61 "Safety of household and similar electrical appliances", together with the common modifications prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

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## **Endorsement notice**

The text of the International Standard IEC 61770:2008/A1:2015 was approved by CENELEC as a European Standard with agreed common modifications. **A1**

**A12 Amendment A12 European foreword**

This document (EN 61770:2009/A12:2022) has been prepared by CLC/TC 61 "Safety of household and similar electrical appliances" in collaboration with CEN/TC 164 "water supply".

The following dates are fixed:

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# CONSOLIDATED VERSION

# VERSION CONSOLIDÉE



**Electric appliances connected to the water mains – Avoidance of backsiphonage and failure of hose-sets**

**Appareils électriques raccordés au réseau d'alimentation en eau – Exigences pour éviter le retour d'eau par siphonnage et la défaillance des ensembles de raccordement**





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# CONSOLIDATED VERSION

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**Electric appliances connected to the water mains – Avoidance of  
backsiphonage  
and failure of hose-sets**

**Appareils électriques raccordés au réseau d'alimentation en eau – Exigences  
pour éviter le retour d'eau par siphonnage et la défaillance des ensembles de  
raccordement**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### **ELECTRIC APPLIANCES CONNECTED TO THE WATER MAINS – AVOIDANCE OF BACKSIPHONAGE AND FAILURE OF HOSE-SETS**

#### FOREWORD

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International Standard IEC 61770 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

This second edition cancels and replaces the first edition published in 1998 including its Amendment 1 (2004) and Amendment 2 (2006). It constitutes a technical revision.

The principal changes in this edition as compared with the first edition are as follows (minor changes are not listed):

- normative references are updated;
- some notes have been converted to normative text (3.10, 5.2, 6.3, 7.2 and Annex A);
- the type of petroleum spirit has been specified (9.3).

The text of this standard is based on the following documents:

FDIS	Report on voting
61/3647/FDIS	61/3687/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

NOTE 1 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

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**A12** This European Amendment A12 supplements or modifies the corresponding clauses of EN 61770:2009+A11:2018+A1:2019 **A12**

**AMENDMENT A1 FOREWORD**

This amendment has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this amendment is based on the following documents:

FDIS	Report on voting
61/4952/FDIS	61/5004/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

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NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication. **A1**



# ELECTRIC APPLIANCES CONNECTED TO THE WATER MAINS – AVOIDANCE OF BACKSIPHONAGE AND FAILURE OF HOSE-SETS

## 1 Scope

1.1 This European Standard specifies requirements for appliances for household and similar purposes to prevent the backflow of non-potable water into the water mains. It also specifies requirements for hose sets used for connecting such appliances to the water mains that supply water at a pressure not exceeding 1 MPa.

NOTE 1 Examples of similar purposes are the installation of appliances in canteens, restaurants, launderettes and communal flats.

NOTE 2 The connection of the appliance to the water mains may be temporary or permanent.

NOTE 3 When reference is made to the water mains, water supplied from a cistern or similar system is also included.

This standard does not apply to

- a) appliances used for dry cleaning;
- b) appliances for medical purposes;
- c) appliances intended for industrial purposes;
- d) water heaters that are an integral part of the water supply system;
- e) water coolers that are an integral part of the water supply system;
- f) backflow prevention devices for general purposes. 1.1.1

## 2 Normative references

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.

IEC 60730-2-8, *Automatic electrical controls for household and similar use – Part 2: Particular requirements for electrically operated water valves, including mechanical requirements*

## 3 Terms and definitions

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

### 3.1

#### potable water

water which is obtained directly from the potable water mains and remains in a closed system up to the **backflow prevention device**

### 3.2

#### non-potable water

water which leaves the closed system after having passed the **backflow prevention device**