

BS EN 60730-2-7:2010

Incorporating corrigendum December 2011



BSI Standards Publication

Automatic electrical controls for household and similar use

Part 2-7: Particular requirements for timers
and time switches

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National foreword

This British Standard is the UK implementation of EN 60730-2-7:2010, incorporating corrigendum December 2011. It was derived from IEC 60730-2-7:2008. It supersedes BS EN 60730-2-7:1992, which will be withdrawn on 1 October 2013.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags. Text altered by CENELEC corrigendum December 2011 is indicated in the text by AC1.

The CENELEC common modifications have been implemented at the appropriate places in the text and are indicated by tags (e.g. C C1).

The UK participation in its preparation was entrusted to Technical Committee CPL/72, Electrical control devices for household equipment and appliances.

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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ISBN 978 0 580 77552 9

ICS 39.040.99; 97.120

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

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 April 2011.

Amendments/corrigenda issued since publication

Date	Text affected
29 February 2012	Implementation of CENELEC corrigendum December 2011

English version

**Automatic electrical controls for household and similar use -
Part 2-7: Particular requirements for timers and time switches**
(IEC 60730-2-7:2008, modified)

Dispositifs de commande électrique
automatiques à usage domestique et
analogue -
Partie 2-7: Règles particulières pour les
minuteries et les minuteries cycliques
(CEI 60730-2-7:2008, modifiée)

Automatische elektrische Regel- und
Steuergeräte für den Hausgebrauch und
ähnliche Anwendungen -
Teil 2-7: Besondere Anforderungen an
Zeitsteuergeräte und Schaltuhren
(IEC 60730-2-7:2008, modifiziert)

This European Standard was approved by CENELEC on 2010-10-01. 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

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Foreword

The text of the International Standard IEC 60730-2-7:2008, prepared by IEC TC 72, Automatic controls for household use, together with the common modifications prepared by the Technical Committee CENELEC TC 72, Automatic controls for household use, was submitted to the CENELEC Unique Acceptance Procedure and was approved as **AC1** EN 60730-2-7 **AC1** on 2010-10-01.

This document supersedes EN 60730-2-7:1991 + A1:1997 + A11:1994 + A12:1993 + A13:2003 + A14:2003.

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 are 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) 2011-10-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2013-10-01

This Part 2-7 is to be used in conjunction with EN 60730-1:2000, *Automatic electrical controls for household and similar use – Part 1: General requirements*, and any subsequent amendments.

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 2004/108/EC. See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60730-2-7:2008 was approved by CENELEC as a European Standard with agreed common modifications.

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AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE –

Part 2-7: Particular requirements for timers and time switches

1 Scope and normative references

This clause of Part 1 is applicable except as follows:

1.1 *Replacement:*

In general, this part of IEC 60730 applies to timers and time switches for household and similar use that may use electricity, gas, oil, solid fuel, solar thermal energy, etc. or a combination thereof, including heating, air conditioning and similar applications.

This standard is also applicable to individual timers utilized as part of a control system or timers which are mechanically integral with multifunctional controls having non-electrical outlets. This standard does not apply to time-delay switches (TDS) within the scope of IEC 60669-2-3¹⁾.

Throughout this standard, the word “timers” means timers and time switches, unless the type is specifically mentioned.

Devices which only indicate time or passage of time are not included.

This standard does not apply to multi-functional controls having an integrated timing function which is not capable of being tested as a separate timing device.

1.1.1 This standard applies to the inherent safety, to the operating characteristics where such are associated with equipment protection and to the testing of automatic electrical control devices used in appliances and other apparatus, electrical and non-electrical, for household and similar purposes, but also extended to industrial purposes when no dedicated product standards exist, such as that for central heating, air conditioning, process heating, etc.

Timers for equipment not intended for normal household use, but which nevertheless may be used by the public, such as equipment intended to be used by laymen in shops, in light industry and on farms, are within the scope of this standard.

This standard is also applicable to timers for appliances within the scope of IEC 60335-1.

This standard does not apply to timers designed exclusively for industrial applications.

Throughout this standard, the word “equipment” means “appliance and equipment”.

1.1.2 This standard applies to automatic electrical control devices, mechanically, electromechanically, electrically or electronically operated, responsive to or controlling parameters such as temperature, pressure, passage or time, humidity, light, electrostatic effect, flow or liquid level.

¹⁾ IEC 60669-2-3:2006, *Switches for household and similar fixed electrical installations – Part 2-3: Particular requirements – Time-delay switches (TDS)*

1.1.3 This standard applies to automatic electrical control devices serving the starting of small motors that are used principally in appliances and apparatus for household and similar purposes. Such control devices may be built into or be separate from the motor.

1.1.4 This standard applies to non-automatic control devices when such are associated with automatic control devices.

1.2 Replacement:

This standard applies to controls with a rated voltage not exceeding 690 V and a rated current not exceeding 63 A.

1.3 Replacement:

This standard does not take into account the response value of an automatic action of a control, if such a response value is dependent upon the method of mounting the control in the equipment. If a response value is of significant purpose for the safety of the user or surroundings, the value defined in the appropriate household equipment standard or as determined by the manufacturer shall apply.

1.4 Replacement:

This standard applies also to timers incorporating electronic devices, requirements for which are contained in Annex H.

1.5 Normative references

This subclause of Part 1 applies except as follows:

Addition:

IEC 60669-1:1998, *Switches for household and similar fixed-electrical installations – Part 1: General requirements* ²⁾
Amendment 1 (1999)
Amendment 2 (2006)

IEC 61010-1, *Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements*

2 Definitions

This clause of Part 1 is applicable except as follows:

2.3 Definitions relating to the function of controls

Additional definition:

2.3.101

timing cycle

program including all the switching activities involved in a start-to-finish operation of a controlled appliance

²⁾ There exists a consolidated edition 3.2 (2007) that includes edition 3 and its Amendments 1 and 2

2.5 Definitions of types of control according to construction

Additional definitions:

2.5.101

plug-in timer

timer or time switch designed for direct plug-in to a socket-outlet

NOTE The plug-in timer is equipped with conductor blades, pins or other means, protruding from the enclosure of the control or the control body itself, to match the dimensional parameters of the socket-outlet to which the control will be connected.

2.5.102

TV timer

control for television equipment that can be set by the user, switching very high inrush currents of a very short duration generated by electrical power supply components and associated electronic component parts with various electrical characteristics

NOTE Examples are power transformers, electronic tube filaments, large electric capacitors and others in television receivers, radio and video products.

2.5.103

synchronous timer

timer or a time switch in which the transmission is effected by a device that is time-based on the frequency of the power supply for the prime mover or the load

2.5.104

hand-wound timer

timer or time switch in which the transmission is provided by actuation

3 General requirements

This clause of Part 1 is applicable.

4 General notes on tests

This clause of Part 1 is applicable except as follows:

4.1.4 Addition:

 *Text deleted* 

4.3.2.1 Addition:

 *Text deleted* 

5 Rating

This clause of Part 1 is applicable.