SVENSK STANDARD SS-EN IEC 60730-2-7

Fastställd	Utgåva	Sida	Ansvarig kommitté
2020-09-23	3	1 (1+26)	SEK TK 23

Automatiska elektriska styr- och reglerdon – Del 2-7: Särskilda fordringar på tidströmställare och kopplingsur

Automatic electrical controls –
Part 2-7: Particular requirements for timers and time switches

Som svensk standard gäller europastandarden EN IEC 60730-2-7:2020. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 60730-2-7:2020.

Nationellt förord

Europastandarden EN IEC 60730-2-7:2020

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 60730-2-7, Third edition, 2015 - Automatic electrical controls - Part 2-7: Particular requirements for timers and time switches**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden ska användas tillsammans med SS-EN 60730-1, utgåva 5, 2016.

Tidigare fastställd svensk standard SS-EN 60730-2-7, utgåva 2, 2010 och SS-EN 60730-2-7/AC1, utgåva 1, 2012, gäller ej fr o m 2023-05-01.

ICS 97.120.00

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

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Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60730-2-7

May 2020

ICS 97.120

Supersedes EN 60730-2-7:2010 and all of its amendments and corrigenda (if any)

English Version

Automatic electrical controls - Part 2-7: Particular requirements for timers and time switches (IEC 60730-2-7:2015)

Dispositifs de commande électrique automatiques - Partie 2-7: Règles particulières pour les minuteries et les minuteries cycliques (IEC 60730-2-7:2015)

Automatische elektrische Regel- und Steuergeräte - Teil 2-7: Besondere Anforderungen an Zeitsteuergeräte und Schaltuhren (IEC 60730-2-7:2015)

This European Standard was approved by CENELEC on 2015-04-16. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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

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

Ref. No. EN IEC 60730-2-7:2020 E

European foreword

The text of document 72/926/CDV, future edition 3 of IEC 60730-2-7, prepared by IEC/TC 72 "Automatic electrical controls" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60730-2-7:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-11-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-05-01

This document supersedes EN 60730-2-7:2010 and all of its amendments and corrigenda (if any).

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

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

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Endorsement notice

The text of the International Standard IEC 60730-2-7:2015 was approved by CENELEC as a European Standard without any modification.

n the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60669-2-3:2006 NOTE Harmonized as EN 60669-2-3:2006 (not modified)

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Annex ZA of EN 60730-1 is applicable with the following additions:

Publication	Year	Title	EN/HD	Year
IEC 60669-1 (mod)	1998	Switches for household and similar fixed-electrical installations -- Part 1: General requirements	EN 60669-1	1999
+ A1 (mod)	1999		+ A1	2002
+ A2 (mod)	2006		+ A2	2008
IEC 60695-11-10	2013	Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10	2013

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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AUTOMATIC ELECTRICAL CONTROLS –

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

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60730-2-7 has been prepared by IEC technical committee 72: Automatic electrical controls.

This third edition cancels and replaces the second edition published in 2008. This third edition constitutes a technical revision. This new edition revises the compliance criteria of type 1.S and 2.S action, revises the requirements for filament lamp loads, adds requirements for abnormal operation in Annex H, removes some special requirements for single countries as well as updates the standard to IEC 60730-1:2010, fourth edition.

This Part 2-7 is intended to be used in conjunction with IEC 60730-1. It was established on the basis of the fourth edition (2010) of that publication. IEC 60730-1 Ed. 5 is available, and this part 2-7 will be aligned with that edition in the future. Consideration may be given to future editions of, or amendments to, IEC 60730-1.

The title of IEC 60730-2-7 Ed.3 has been updated to the title of IEC 60730-1 Ed.5.0. However, IEC 60730-2-7 Ed.3.0 has not been updated in accordance with the technical requirements in IEC 60730-1 Ed. 5.0.

This Part 2-7 supplements or modifies the corresponding clauses in IEC 60730-1 so as to convert that publication into the IEC standard: Particular requirements for timers and time switches.

Where this Part 2-7 states "addition", "modification" or "replacement", the relevant requirement, test specification or explanatory matter in Part 1 should be adapted accordingly.

Where no change is necessary, this Part 2-7 indicates that the relevant clause or subclause applies.

In the development of a fully international standard, it has been necessary to take into consideration the differing requirements resulting from practical experience in various parts of the world and to recognize the variation in national electrical systems and wiring rules.

The “in some countries” notes regarding differing national practice are contained in the following clauses and subclauses:

– 6.3.6.101
– Table 1, Notes 101 and 103
– 7.2.9
– 11.4.104
– 17.16.101.1
– 17.16.101.3
– 17.16.103.1
– Table 15, Notes 101 and 102
– Table 16, Notes 101 and 102
– 21.101
– Annex D
– H.26.11

In this publication:

1) The following print types are used:
   – Requirements proper: in roman type.
   – *Test specifications: in italic type.*
   – Explanatory matter: in smaller roman type
2) Subclauses, notes, tables or figures which are additional to those in Part 1 are numbered starting from 101, additional annexes are lettered AA, BB, etc.

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

CDV	Report on voting
72/926/CDV	72/959/RVC

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.

A list of all parts of the IEC 60730 series, under the general title: *Automatic electrical controls*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

AUTOMATIC ELECTRICAL CONTROLS –

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 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 outputs. This standard does not apply to time-delay switches (TDS) within the scope of IEC 60669-2-3.

NOTE 1 Throughout this standard, the word “timers” means timers and time switches, unless the type is specifically mentioned.

NOTE 2 Devices which only indicate time or passage of time are not included.

NOTE 3 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 *Replacement:*

This standard applies to the inherent safety, to the operating characteristics where such are associated with equipment protection and to the testing of timers 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.

1.1.2 *Replacement:*

This standard applies to manual controls when such are electrically and/or mechanically integral with timers.

1.4 *Replacement:*

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

This standard applies also to timers using NTC or PTC thermistors, requirements for which are contained in Part 1, Annex J.

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*[1]
IEC 60669-1:1998/AMD1:1999
IEC 60669-1:1998/AMD2:2006

IEC 60695-11-10:2013, *Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods*

[1] There exists a consolidated edition 3.2 (2007) that includes IEC 60669-1:2008 and its Amendments 1 and 2.