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Automatiska elektriska styr- och reglerdon för hushållsbruk – Del 2-4: Särskilda fordringar på termiska motorskydd för motorkompressorer

*Automatic electrical controls for household and similar use –
Part 2-4: Particular requirements for thermal motor protectors for motor-compressors of
hermetic and semi-hermetic type*

Som svensk standard gäller europastandarden EN 60730-2-4:2007. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60730-2-4:2007.

Nationellt förord

Europastandarden 60730-2-4:2007

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60730-2-4, Second edition, 2006 - Automatic electrical controls for household and similar use - Part 2-4: Particular requirements for thermal motor protectors for motor-compressors of hermetic and semi-hermetic type**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden ska användas tillsammans med SS-EN 60730-1, utgåva 3, 2001.

Tidigare fastställd svensk standard SS-EN 60730-2-4, utgåva 1, 1994, SS-EN 60730-2-4/A1, utgåva 1, 1998, SS-EN 60730-2-4 C1, utgåva 1, 2001, SS-EN 60730-2-4/A2, utgåva 1, 2002, gäller ej fr o m 2010-09-01

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven 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.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

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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**Automatic electrical controls for household and similar use -
Part 2-4: Particular requirements for thermal motor protectors
for motor-compressors of hermetic and semi-hermetic type
(IEC 60730-2-4:2006, modified)**

Dispositifs de commande électrique
automatiques à usage domestique
et analogue -
Partie 2-4: Règles particulières
pour les dispositifs thermiques
de protection de moteurs
pour motocompresseurs de type
hermétique et semi hermétique
(CEI 60730-2-4:2006, modifiée)

Automatische elektrische
Regel- und Steuergeräte
für den Hausgebrauch
und ähnliche Anwendungen -
Teil 2-4: Besondere Anforderungen
für thermische Motorschutzeinrichtungen
für hermetisch und halbhermetisch
gekapselte Motorverdichter
(IEC 60730-2-4:2006, modifiziert)

This European Standard was approved by CENELEC on 2007-09-01. 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, 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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the International Standard IEC 60730-2-4:2006, 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 formal vote and was approved by CENELEC as EN 60730-2-4 on 2007-09-01.

This European Standard supersedes EN 60730-2-4:1993 + corrigendum March 2001 + A1:1998 + corrigendum March 2001 + A2:2002.

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) 2008-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2010-09-01

This Part 2-4 is to be used in conjunction with EN 60730-1:2000 + A1:2004, Automatic electrical controls for household and similar use – Part 1: General requirements, and any subsequent amendments.

This Part 2-4 supplements or modifies the corresponding clauses in EN 60730-1 so as to convert that publication into the European Standard: Particular requirements for thermal motor protectors for motor-compressors or hermetic and semi-hermetic type.

Where this Part 2-4 states "addition", "modification" or "replacement", the relevant requirement, test specification or explanatory matter in Part 1 shall be adapted accordingly.

Where no change is necessary, this Part 2-4 indicates that the relevant clause or subclause applies.

In this publication, the following print types are used:

- Requirements proper: in roman type.
- *Test specifications: in italic type.*
- Explanatory matter: in smaller roman type.

Subclauses, notes, items 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 the International Standard IEC 60730-2-4:2006 was approved by CENELEC as a European Standard with agreed common modifications as given below.

[REDACTED]

[REDACTED]

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[REDACTED]

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Addition to Annex ZA of EN 60730-1:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60269-1	- ¹⁾	Low-voltage fuses - Part 1: General requirements	EN 60269-1	2007 ²⁾
IEC 60269-3 (mod)	- ¹⁾	Low-voltage fuses - Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household or similar applications) - Examples of standardized systems of fuses A to F	HD 60269-3	2007 ²⁾
IEC 60335-2-34	2002	Household and similar electrical appliances - Safety - Part 2-34: Particular requirements for motor-compressors	EN 60335-2-34 + A11	2002 2004

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE –

Part 2-4: Particular requirements for thermal motor protectors for motor-compressors of hermetic and semi-hermetic type

1 Scope and normative references

This clause of Part 1 is applicable except as follows:

1.1 *Replacement:*

This part of IEC 60730 applies to the partial evaluation of thermal motor protectors as defined in IEC 60730-1 for sealed (hermetic and semi-hermetic type) motor-compressors.

A thermal motor protector is an integrated control which is dependent on its correct mounting and fixing in or on a motor and which can only be fully tested in combination with the relevant motor.

Requirements concerning the testing of the combination of motor and thermal motor protectors are given in IEC 60335-2-34.

This standard applies to thermal motor protectors for motor compressors using NTC or PTC thermistors, additional requirements for which are contained in Annex J.

1.1.1 This standard applies to the inherent safety, to the operating values, operating times, and operating sequences, where such are associated with equipment safety, and to the testing of thermal motor protectors used in or on sealed (hermetic and semi-hermetic type) motor-compressors.

This standard applies to thermal motor protectors for motor-compressors within the scope of IEC 60335-2-34.

Throughout this standard the word "equipment" means "appliance and equipment".

Thermal motor protectors for motor compressors 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 does not apply to thermal motor protectors designed exclusively for industrial applications.

1.1.2 This standard does not apply to other means of motor protection.

1.1.3 This standard does not apply to a manual device for opening the circuit.

1.2 Replacement:

This standard applies to thermal motor protectors for use with electric motors with a rated voltage equal to or less than 690 V and a rated output of 11 kW or less.

Controls complying with the requirements of this standard are considered to comply with the requirements of IEC 60730-2-2¹⁾.

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. Where a response value is of significant purpose for the protection of the user, or surroundings, the value defined in the appropriate household equipment standard or as determined by the manufacturer applies.

1.5 Normative references

Addition:

IEC 60269-1, *Low-voltage fuses – Part 1: General requirements*

IEC 60269-3, *Low-voltage fuses – Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)*

IEC 60335-2-34:2002, *Household and similar electrical appliances – Safety – Part 2-34: Particular requirements for motor-compressors*

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¹⁾ IEC 60730-2-2, *Automatic electrical controls for household and similar use – Part 2-2: Particular requirements for thermal motor protectors.*