
Automatic electrical controls for household and similar use -- Part 2-2: Particular requirements for thermal motor protectors

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EUROPEAN STANDARD

EN 60730-2-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2002

ICS 97.120

Supersedes EN 60730-2-2:1991 + A1:1997 + A2:1997 + A11:1995

English version

Automatic electrical controls for household and similar use
Part 2-2: Particular requirements for thermal motor protectors
(IEC 60730-2-2:2001, modified)

Dispositifs de commande électrique
automatiques à usage domestique
et analogue
Partie 2-2: Règles particulières pour
les dispositifs thermiques de protection
des moteurs
(CEI 60730-2-2:2001, modifiée)

Automatische elektrische Regel- und
Steuergeräte für den Hausgebrauch
und ähnliche Anwendungen
Teil 2-2: Besondere Anforderungen
an thermisch wirkende
Motorschutzeinrichtungen
(IEC 60730-2-2:2001, modifiziert)

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SIST EN 60730-2-2:2002

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This European Standard was approved by CENELEC on 2002-03-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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 document 72/526/FDIS, future edition 2 of IEC 60730-2-2, prepared by IEC TC 72, Automatic controls for household use, was submitted to the IEC-CENELEC parallel vote. Together with common modifications prepared by the Technical Committee CENELEC TC 72, Automatic controls for household use, it was approved by CENELEC as EN 60730-2-2 on 2002-03-01.

This European Standard supersedes EN 60730-2-2: 1991 and its amendments A11:1995, A1:1997 and A2:1997.

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) 2002-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-03-01

This Part 2-2 is to be used in conjunction with EN 60730-1 2000: Automatic electrical controls for household and similar use – Part 1: General requirements, and its amendments. Consideration may be given to future editions of EN 60730-1.

This Part 2-2 supplements or modifies the corresponding clauses of EN 60730-1 so as to convert it into the European Standard: Particular requirements for thermal motor protectors.

Where a particular clause or subclause of Part 1 is not mentioned in this Part 2-2, that clause or subclause applies as far as is reasonable. Where this Part 2-2 states "addition", "modification" or "replacement" the relevant text of Part 1 is to be adapted accordingly.

Where reference is made to other international or harmonized standards, the edition of that standard quoted in Annex ZA (normative) is applicable.

There are no special national conditions (snc) causing a deviation from this European Standard other than those listed in Annex ZB of EN 60730-1.

There are no national deviations from this European Standard other than those listed in Annex ZC of EN 60730-1.

In this standard

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

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annex ZA is normative and annexes D, AA and BB are informative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60730-2-2:2001 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

Foreword **Delete**

12 Moisture and dust resistance

Delete the "in some countries" note.

17 Endurance

Delete the words "Additional subclauses:".

17.101.1 **Delete** the "in some countries" note.

20 Creepage distances, clearances and distances through solid insulation

20.102 **Delete** the "in some countries" note

Annex D **Replace** with "This annex of Part 1 is not applicable.".

Annex AA

[SIST EN 60730-2-2:2002](https://standards.iteh.ai/catalog/standards/sist/d025375d-c33c-4e08-9a35-30c1b7a20100/iec-60730-2-2-2001)

AA17

Replace the instruction by "Additional subclauses to 17.101:".

AA17.105.1.2 **Delete** the subclause reference "AA17.105.1.3" and **delete** the "in some countries" note under the table.

Annex ZA
(normative)**Normative references to international publications
with their corresponding European publications**

Addition to annex ZA of EN 60730-1:2000

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60034-11	1978	Rotating electrical machines Part 11: Built-in thermal protection – Chapter 1: Rules for protection of rotating electrical machines	-	-

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

60730-2-2

Deuxième édition
Second edition
2001-12

Dispositifs de commande électrique automatiques
à usage domestique et analogue –

Partie 2-2:
Règles particulières pour les dispositifs
thermiques de protection des moteurs

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Automatic electrical controls
for household and similar use –

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Part 2-2:
Particular requirements for thermal
motor protectors

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE –

Part 2-2: Particular requirements for thermal motor protectors

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
<https://standards.iteh.ai/catalog/standards/sist/4025375d-c33c-4e08-9a35-714111111111/iec-60730-2-2-2002>
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60730-2-2 has been prepared by IEC technical committee 72: Automatic controls for household use.

This second edition cancels and replaces the first edition published in 1990, amendment 1 (1995) and amendment 2 (1997). This second edition constitutes a technical revision.

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

FDIS	Report on voting
72/526/FDIS	72/534/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 3.

Annexes D, AA, and BB are for information only.

This Part 2-2 is to be used in conjunction with IEC 60730-1. It was established on the basis of the third edition (1999) of that standard. Consideration may be given to future editions of, or amendments to, IEC 60730-1.

This Part 2-2 supplements or modifies the corresponding clauses in IEC 60730-1 so as to convert that publication into the IEC standard: Particular requirements for thermal motor protectors.

Where this Part 2-2 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 2-2 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:

- clause 12
- 17.101.1
- 20.102
- AA.17.105.1.3
- annex D

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- *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 committee has decided that the contents of this publication will remain unchanged until 2003. At this date, the publication will be

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

AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE –

Part 2-2: Particular requirements for thermal motor protectors

1 Scope

This clause of Part 1 is replaced by the following:

1.1 This part of IEC 60730 applies to the partial evaluation of thermal motor protectors, as defined in IEC 60730-1, for household and similar use, including heating, air conditioning and similar applications.

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 protector are given in annex AA for information and include requirements taken from other IEC standards.

This part of IEC 60730 applies to thermal motor protectors using thermistors (NTC, PTC), additional requirements for which are contained in annex J of part 1.

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 household or similar equipment.

<https://standards.iteh.ai/catalog/standards/sist/d025375d-c33c-4e08-9a35-1144b1111111/iec-60730-2-2-2002>

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

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

Throughout this standard, the words "not applicable" mean that the test is not applicable to the evaluation of the thermal motor protector submitted separately. However, the test may be applicable to the evaluation of the thermal motor protector in combination with the motor.

Thermal motor protectors 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 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.

1.1.4 This standard does not apply to thermal motor protectors for hermetic or semi-hermetic motor compressors.