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[SIST EN 60255-8:2001](https://standards.iteh.ai/catalog/standards/sist/1b8967bf-db21-4413-9406-25d834bb6e28/sist-en-60255-8-2001)

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60255-8**

January 1998

ICS 29.120.70

English version

**Electrical relays**  
**Part 8: Thermal electrical relays**  
(IEC 60255-8:1990, modified)

Relais électriques  
Partie 8: Relais électriques thermiques  
(CEI 60255-8:1990, modifiée)

Elektrische Relais  
Teil 8: Überlastrelais  
(IEC 60255-8:1990, modifiziert)

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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, 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 the International Standard IEC 60255-8:1990, prepared by IEC TC 95, Measuring relays and protection equipment, together with the common modifications prepared by the CENELEC BTTF 63-5, Static measuring relays, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60255-8 on 1997-07-01.

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) 1998-08-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1998-08-01

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 appendices A, B and C are informative. Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60255-8:1990 was approved by CENELEC as a European Standard with agreed common modifications as given below.

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### COMMON MODIFICATIONS

**Add:**

#### Introduction

Publications of IEC Technical Committee TC 95 are classified on a hierarchical basis:

- |               |   |
|---------------|---|
| First level:  | General standards   |
| Second level: | Generic standards relating wholly or partly to a family of relays                             |
| Third level:  | Standards applicable wholly or partly to a particular group of relays                         |
| Fourth level: | Particular requirements or specifications relating to a specific type (or pattern) of a relay |

This is a third level publication.

#### 1 Scope and object

Replace "IEC Publication 255 series" by "EN 60255 and IEC 60255 series".



**3 Standard values****3.1 Characteristic curves**

In note 2, delete "as specified in National Standards or".

**3.2 Nominal ranges of auxiliary energizing quantities**

Delete "as specified in National Standards or".

**3.3 Standard reference values of influencing quantities and factors**

Table 1 Replace table 1 by:

**Table 1: Reference conditions and test tolerances  
of influencing quantities and factors**

	Influencing Quantity or factor	Reference condition	Test tolerances
General	Position	As for normal service condition	For static relays 5° in any direction or as declared by the manufacturer
Characteristic quantities and input energizing quantities	Setting of basic current	Rated current or as declared by the manufacturer	As declared by the manufacturer
	Magnitude (reference for determination of variations)	As declared by the manufacturer. For motor protection, two times and six times basic current.	As declared by the manufacturer. For motor protection: ± 1 %
	D.C. transient component in a.c.	Zero	Where necessary as declared by the manufacturer
Time	Setting	As declared by the manufacturer	As declared by the manufacturer
	Setting parameter(s) of the curve	As declared by the manufacturer	As declared by the manufacturer
Auxiliary energizing quantities	Voltage	Rated value(s)	As declared by the manufacturer
	D.C. component in a.c.	Zero	Where necessary as declared by the manufacturer

Delete the note.

Table 2 **Delete** "as specified in National Standards or" (two times).

Table 3 **Delete** " as specified in National Standards or" (two times).

**Delete** "For motor protection: rated speed of motor".

**Replace** "See Note 8 of Table II of IEC 255-6" by "See note 8b and c of table II of EN 60255-6".

### 3.4 *Standard values of the limits of the nominal range of influencing quantities and factors*

Table 4 **Replace** table 4 by:

**Table 4: Standard values of the limits of the nominal ranges of influencing quantities and factors**

	Influencing Quantity or factor	Nominal range
General	Rate of change of ambient temperature	As declared by the manufacturer
	Relative humidity	
	Position <a href="https://standards.iteh.ai/catalog/standards/sist/1b8967bf-d021-4413-94025d834bb6e28/sist-en-60255-8-2001">SIST EN 60255-8:2001</a>	For static relays 10° in any direction or as declared by the manufacturer
	External magnetic field	As declared by the manufacturer
Characteristics quantities and input energizing quantities	Magnitude	As declared by the manufacturer For motor protection see 4.1.1
	Waveform	As declared by the manufacturer
	D.C. transient component in a.c.	
Time	Setting parameter(s) of the curve	As declared by the manufacturer
Auxiliary energizing quantities	Voltage	Where necessary, as declared by the manufacturer
	Frequency	
	Waveform	
	D.C. transient component in a.c.	
NOTE: There should be neither condensation nor ice formation inside the relay.		

**Delete** the note.

### 3.5 *Constant k*

**Delete** "specified in National Standards or".

### 3.6 *Setting range of basic current*

**Delete** "as specified in National Standards or".

### 3.7 *Disengaging time*

Delete "specified in National Standards or".

## 4 Accuracy

### 4.1.1 *Effective range of the operating current*

Delete "specified in National Standards or".

### 4.1.3 *Influence of previous current and correcting quantities on specified time*

Delete "specified in National Standards or" (two times).

Replace "(if any)" by ", if any,".

### 4.2.2 *Effect of variations in correcting quantities on the current*

Delete "specified in National Standards or as".

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## 5 Tests related to operating characteristics and accuracy

### 5.1 *General*

SIST EN 60255-8:2001

Replace the text by: "The conditions specified in EN 60255-6 shall be complied with."  
<http://standards.iteh.ai/catalog/standards/sist/1b896716-3121-4413-9406-25d834bb6e28/sist-en-60255-8-2001>

### 5.2.3 *Variations in current due to current circuit connections*

Replace "for example two phases" by "for example, two phases".

## 6 Tests for thermal requirements

### 6.1 *Test for the limiting thermal withstand value for operating time of the relay (for motor protection only)*

Replace "(or the maximum value declared by the manufacturer)" by ", or the maximum value declared by the manufacturer,".

## Appendix B

B.1 The third equation should be written in one line.

## Annex ZA (normative)

Normative references to international publications  
with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050	series	International electrotechnical vocabulary (IEV)	-	-
IEC 60255	series	Electrical relays	EN 60255	series
IEC 60255-6 (mod)	1988	Part 6: Measuring relays and protection equipment	EN 60255-6 + corr. February	1994 1995

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

255-8

Deuxième édition  
Second edition  
1990-09

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**Relais électriques**

**Huitième partie:**

**Relais électriques thermiques**

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**Electrical relays**

**Part 8: IEC 60255-8:2001**

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**Thermal electrical relays**

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International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL RELAYS  
Part 8: Thermal electrical relays

## FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

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PREFACE  
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This standard has been prepared by Sub-Committee 41B: Measuring relays and protection equipment, of IEC Technical Committee 41: Electrical relays. [SIST EN 60255-8:2001](https://standards.iteh.ai/catalog/standards/sist/1b8967bf-db21-4413-9406-255-8)  
[https://standards.iteh.ai/catalog/standards/sist/1b8967bf-db21-4413-9406-](https://standards.iteh.ai/catalog/standards/sist/1b8967bf-db21-4413-9406-255-8)

This standard constitutes the second edition of IEC Publication 255-8 and replaces the first edition (1978). It also replaces the first edition (1982) and the second impression (1987) of IEC Publication 255-17.

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

Six Months' Rule	Report on Voting
41B(CO)47	41B(CO)51

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

This standard is a third-level specification.

*The following IEC publications are quoted in this standard:*

- Publications Nos. 50: International electrotechnical vocabulary (IEV).  
255: Electrical Relays.  
255-6 (1988): Part 6: Measuring relays and protection equipment.