



NSAI
Standards

Irish Standard
I.S. EN 60255-8:1998

Electrical relays -- Part 8: Thermal electrical relays (IEC 60255-8:1990 (MOD))

I.S. EN 60255-8:1998

Incorporating amendments/corrigenda issued since publication:

<i>This document replaces:</i>	<i>This document is based on:</i> EN 60255-8:1998	<i>Published:</i> 13 January, 1998
This document was published under the authority of the NSAI and comes into effect on: 2 February, 2006		ICS number: 29.120.70
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EUROPEAN STANDARD

EN 60255-8

NORME EUROPÉENNE

EUROPÄISCHE NORM

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)

This European Standard was approved by CENELEC on 1997-07-01. 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, 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.

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.

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".

I.S. EN 60255-8:1998

**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC
255-8**

Deuxième édition
Second edition
1990-09

Relais électriques

Huitième partie:

Relais électriques thermiques

Electrical relays

Part 8:

Thermal electrical relays

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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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.

PREFACE

This standard has been prepared by Sub-Committee 41B: Measuring relays and protection equipment, of IEC Technical Committee 41: Electrical relays.

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.

ELECTRICAL RELAYS

Part 8: Thermal electrical relays

SECTION ONE – GENERAL

1 Scope and object

This standard is applicable to dependent specified time electrical measuring relays which protect equipment from electrical thermal damage by the measurement of current flowing in the protected equipment.

1.1 This standard covers the following two types of relays:

- a) thermal electrical relays having a total memory function of the load-current conditions before the conditions which caused the switching of the relay;
- b) thermal electrical relays having a partial memory function, i.e. of the overload current conditions only.

1.2 This standard also covers the particular requirements for thermal electrical relays used for motor protection.

The object of this standard is to state the particular requirements for thermal electrical relays. It is to be read in conjunction with higher level documents in the IEC Publication 255 series.

2 Definitions

For definitions of general terms not defined in this standard, reference should be made to the International Electrotechnical Vocabulary (IEV) (IEC Publication 50) and higher level documents.

For the purpose of this standard the following definitions shall apply:

2.1 **hot curve:** For a thermal electrical relay with a total memory function, the characteristic curve representing the relationship between specified operating time and current, taking account of the thermal effect of a specified steady-state load current before the overload occurs.

2.2 **cold curve:** For a thermal electrical relay, the characteristic curve representing the relationship between specified operating time and current, with the relay at reference and steady-state conditions with no-load current flowing before the overload occurs.

2.3 **correcting quantity (compensating quantity):** A quantity modifying the specified characteristics of the relay in a specified manner. Such quantities can be oil temperature, etc.

2.4 **basic current:** The specified limiting value of the current for which the relay is required not to operate.

NOTE – The basic current serves as a reference for the definition of the characteristics of thermal electrical relays. Settings of a thermal electrical relay are made in terms of this current.

2.5 **constant k :** The constant by which the basic current is multiplied to obtain the current value to which the accuracy of the minimum operating current referred.

2.6 **previous load ratio:** The ratio of the load current preceding the overload to basic current under specified conditions.

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