



**SLOVENSKI STANDARD**  
**SIST EN 60240-1:2001**  
**01-september-2001**

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**Characteristics of electric infra-red emitters for industrial heating - Part 1: Short wave infra-red emitters**

Characteristics of electric infra-red emitters for industrial heating -- Part 1: Short wave infra-red emitters

Eigenschaften von elektrischen Infrarotstrahlen für Heizzwecke -- Teil 1: Kurzwellen-Infrarotstrahler

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

Caractéristiques des émetteurs électriques d'infrarouge pour chauffage industriel -- Partie 1: Emetteurs d'infrarouge court

<https://standards.iteh.ai/catalog/standards/sist/99d62037-d1c7-404a-9d19-c4d7b765e6d9/sist-en-60240-1-2001>

**Ta slovenski standard je istoveten z: EN 60240-1:1994**

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**ICS:**

97.100.10      Ò\ dã } ä ! ^ } ä ä      Electric heaters

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EUROPEAN STANDARD

EN 60240-1

NORME EUROPEENNE

EUROPÄISCHE NORM

June 1994

UDC 697.27:621.365

Descriptors: Infra-red, short-wave infra-red, emitters, infra-red lamp,  
tubular emitters

## ENGLISH VERSION

Characteristics of electric infra-red emitters  
for industrial heating  
Part 1: Short wave infra-red emitters  
(IEC 240-1:1992)

Caractéristiques des émetteurs  
électriques d'infrarouge pour  
chauffage industriel  
Partie 1: Emetteurs d'infrarouge  
court  
(CEI 240-1:1992)

Eigenschaften von elektrischen  
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Heizzwecke  
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Infrarotstrahler  
(IEC 240-1:1992)

iTech STANDARD PREVIEW

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This European Standard was approved by CENELEC on 1994-03-08.  
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,  
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 CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 240-1:1992 could be accepted without textual changes, has shown that no common modifications were necessary for the acceptance as European Standard.

The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as EN 60240-1 on 8 March 1994.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1995-03-15
- latest date of withdrawal of conflicting national standards (dow) 1995-03-15

For products which have complied with the relevant national standard before 1995-03-15, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2000-03-15.

Annexes designated "normative" are part of the body of the standard. In this standard, annex ZA is normative.

SIST EN 60240-1:2001

<https://standards.iteh.ai/catalog/standards/sist/99d62037-d1c7-404a-9d19-c4d7b763e6d7/sist-en-60240-1-2001>

**ENDORSEMENT NOTICE**

The text of the International Standard IEC 240-1:1992 was approved by CENELEC as a European Standard without any modification.



## ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD  
WITH THE REFERENCES OF THE RELEVANT 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.

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

IEC Publication	Date	Title	EN/HD	Date
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50 (841)	1983	International Electrotechnical Vocabulary (IEV) - Chapter 841: Industrial electroheating	-	-
61	series	Lamp caps and holders together with gauges for the control of interchangeability and safety	EN 60061	series
598	series	Luminaires	EN 60598	series
682	1980	Standard method of measuring the pinch temperature of quartz-tungsten-halogen lamps	EN 60682*	1993

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\* EN 60682 includes A1:1987 to IEC 60682

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**NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD**

**CEI  
IEC  
240-1**

Deuxième édition  
Second edition  
1992-07

**Caractéristiques des émetteurs électriques  
d'infrarouge pour chauffage industriel**

**Partie 1:**  
Emetteurs d'infrarouge court

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<https://standards.iteh.ai/catalog/standards/sist/en-60240-1-2001/iec-60240-1-2001>

**Part 1:**  
Short wave infra-red emitters

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## CHARACTERISTICS OF ELECTRIC INFRA-RED EMITTERS FOR INDUSTRIAL HEATING

### Part 1: Short wave infra-red emitters

#### 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.

### iTeh STANDARD PREVIEW

This part of International Standard IEC 240 has been prepared by IEC Technical Committee No. 27: Industrial electroheating equipment.

SIST EN 60240-1:2001

IEC 240-1 replaces the first edition of IEC 240 published in 1967.

<https://standards.iteh.ai/catalog/standards/sist-en-60240-1-2001>

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

DIS	Report on Voting
27(CO)91	27(CO)95

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



# CHARACTERISTICS OF ELECTRIC INFRA-RED EMITTERS FOR INDUSTRIAL HEATING

## Part 1: Short wave infra-red emitters

### 1 Scope

This part of IEC 240 refers to short wave infra-red emitters for industrial heating purposes falling into two categories:

- a) Bulb reflector infra-red lamps.
- b) Tubular emitters.

### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 240. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 240 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

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IEC 50(841): 1983, *International Electrotechnical Vocabulary (IEV) – Chapter 841: Industrial electroheating.*

[SIST EN 60240-1:2001](https://standards.iteh.ai/catalog/standards/sist/99d62037-d1c7-404a-9d19-4d7b76576619/iec-60240-1-2001)

[https://standards.iteh.ai/catalog/standards/sist/99d62037-d1c7-404a-9d19-](https://standards.iteh.ai/catalog/standards/sist/99d62037-d1c7-404a-9d19-4d7b76576619/iec-60240-1-2001)

IEC 61, *Lamp caps and holders together with gauges for the control of interchangeability and safety.*

IEC 598, *Luminaires.*

IEC 682: 1980, *Standard method of measuring the pinch temperature of quartz-tungsten-halogen lamps.*

### 3 Definitions

For definitions of fundamental and general terms in the electroheat field, refer to IEC 50 (841).

For the purposes of this part, the following definitions apply:

**3.1 short wave infra-red emitter:** An emitter which radiates mainly in the short wave infra-red, i.e. having a maximum emission at the wavelength equal to or less than 2  $\mu\text{m}$  and for which light production is not of direct interest.