
Gospodinjski sobni neposredni grelniki - Metode za merjenje funkcionalnosti - 2.
del: Dodatna določila za merjenje faktorja sevanja

Household electric direct-acting room heaters - Methods for measuring performance -
Part 2: Additional provisions for the measurement of the radiation factor

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: EN IEC 60675-2:2021
<https://standards.iteh.ai/catalog/standards/sist/e20e8a5c-f057-4fe4-853a-eba5eef3296e/sist-en-iec-60675-2-2021>

ICS:

17.240	Merjenje sevanja	Radiation measurements
97.100.10	Električni grelniki	Electric heaters

SIST EN IEC 60675-2:2021

en

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

SIST EN IEC 60675-2:2021

<https://standards.iteh.ai/catalog/standards/sist/e20e8a5c-f057-4fe4-853a-eba5eef3296e/sist-en-iec-60675-2-2021>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60675-2

January 2021

ICS 97.100.10

English Version

**Household electric direct-acting room heaters - Methods for
measuring performance - Part 2: Additional provisions for the
measurement of the radiant factor
(IEC 60675-2:2020)**

Appareils électrodomestiques de chauffage des locaux à
action directe - Méthodes de mesure de l'aptitude à la
fonction - Partie 2: Dispositions supplémentaires pour la
mesure du coefficient de rayonnement
(IEC 60675-2:2020)

Elektrische Haushalt-Direktheizgeräte - Prüfverfahren zur
Bestimmung der Gebrauchseigenschaft - Teil 2: Zusätzliche
Bestimmungen für die Messung des Strahlungsfaktors
(IEC 60675-2:2020)

This European Standard was approved by CENELEC on 2021-01-08. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 60675-2:2021 (E)**European foreword**

The text of document 59C/256/FDIS, future edition 1 of IEC 60675-2, prepared by SC 59C "Electrical heating appliances for household and similar purposes" of IEC/TC 59 "Performance of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60675-2:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-10-08
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-01-08

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 60675-2:2020 was approved by CENELEC as a European Standard without any modification.

ITEH STANDARD PREVIEW
(standards.iteh.ai)
SIST EN IEC 60675-2:2021
<https://standards.iteh.ai/catalog/standards/sist/e20e8a5c-f057-4fe4-853a-eba5eef3296e/sist-en-iec-60675-2-2021>

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Replace the references in Annex ZA of EN 60675:1995 with the following references:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60675	1994	Household electric direct-acting room heaters - Methods for measuring performance	EN 60675	1995
+ A1	1998		+ A1	1998
+ A2	2018		+ A2	2018
-	-		+ A11	2019
IEC 60675-3	2020	Household electric direct-acting room heaters - Methods for measuring performance - Part 3: Additional provisions for the measurement of the radiation efficiency	EN IEC 60675-3	2021

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

SIST EN IEC 60675-2:2021

<https://standards.iteh.ai/catalog/standards/sist/e20e8a5c-f057-4fe4-853a-eba5eef3296e/sist-en-iec-60675-2-2021>



IEC 60675-2

Edition 1.0 2020-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Household electric direct-acting room heaters – Methods for measuring performance –
Part 2: Additional provisions for the measurement of the radiant factor**

**Appareils électrodomestiques de chauffage des locaux à action directe –
Méthodes de mesure de l'aptitude à la fonction –
Partie 2: Dispositions supplémentaires pour la mesure du coefficient de rayonnement**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 97.100.10

ISBN 978-2-8322-9087-3

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms, definitions and symbols	5
4 Classification	8
5 List of measurements	8
6 General conditions for measurements	8
7 Dimensions, mass and means of connection to the supply	8
8 Temperature rises of air-outlet grilles and external surfaces	8
9 Temperature rises of surfaces surrounding the heater	8
10 Warming-up time of the heater	8
11 Stability of room temperature	8
12 Set-back	9
13 Frost protection temperature	9
14 Inrush current	9
15 Effect of radiant heat	9
15.1 Determination of radiant factor	9
15.2 Determination of radiation efficiency	9
16 Measurement of the usable power	9
17 Verification of the maximum room temperature promoted by the manufacturer	9
Annex A (normative) Climatic test room	10
Annex B (informative) Information provided at point-of-sale	11
Annex C (informative) Test report form	12
Annex AA (normative) Determination of radiant factor	13
AA.1 General	13
AA.2 Test methods	13
AA.2.1 General	13
AA.2.2 Radiant factor	13
AA.3 Measurement equipment	15
AA.3.1 Principal radiometer design features	15
AA.3.2 Radiometer technical design	16
AA.3.3 Pyro-electric detector	17
AA.4 Radiometer calibration	17
AA.4.1 Calibration process	17
AA.4.2 Worked example	18
Figure 101 – Radiation reference plane	6
Figure 102 – Measuring grid	7
Figure AA.1 – Radiometer design features	16
Figure AA.2 – Determination of the correlation factor for a luminous radiant heater	18
Table AA.1 – Tube heater calibration	18

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD ELECTRIC DIRECT-ACTING ROOM HEATERS –
METHODS FOR MEASURING PERFORMANCE –****Part 2: Additional provisions for the measurement
of the radiant factor****FOREWORD**

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60675-2 has been prepared by subcommittee 59C: Electrical heating appliances for household and similar purposes, of IEC technical committee 59: Performance of household and similar electrical appliances.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
59C/256/FDIS	59C/260/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

This International Standard is to be used in conjunction with IEC 60675:1994, IEC 60675:1994/AMD1:1998 and IEC 60675:1994/AMD2:2018. This document supplements or modifies the corresponding clauses of IEC 60675:1994. Where the text indicates an "addition" to or a "replacement" of the relevant provision of IEC 60675:1994, these changes are made to the relevant text of IEC 60675:1994. Where no change is necessary, the words "This clause of IEC 60675:1994 is applicable" are used. When a particular subclause of IEC 60675:1994 is not mentioned in this part, that subclause applies as far as is reasonable.

Additional specific provisions to those in Part 1, given as individual clauses or subclauses, are numbered starting from 101.

NOTE The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

In this document, the following print types are used:

- **terms listed in Clause 3 of this document and of IEC 60675:1994 and IEC 60675-3:2020:**
Arial bold;
- *test specifications: in italic type.*

A list of all parts in the IEC 60675 series, published under the general title *Household electric direct-acting room heaters – Methods for measuring performance*, can be found on the IEC website.

(standards.iteh.ai)

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

HOUSEHOLD ELECTRIC DIRECT-ACTING ROOM HEATERS – METHODS FOR MEASURING PERFORMANCE –

Part 2: Additional provisions for the measurement of the radiant factor

1 Scope

This clause of IEC 60675:1994 is applicable, with the following modification:

Replace the first paragraph with the following content:

This document applies to electric **direct-acting room heaters** .

This document defines performance characteristics related to the radiant effect and specifies methods for measuring the **radiant factor** for the information of users.

This document is used to measure the **radiant factor** of **direct-acting room heaters**.

2 Normative references

Replace Clause 2 of IEC 60675:1994 with the following content:

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 60675:1994, *Household electric direct-acting room heaters – Methods for measuring performance*

IEC 60675:1994/AMD1:1998

IEC 60675:1994/AMD2:2018

IEC 60675-3:2020, *Household electric direct-acting room heaters – Methods for measuring performance – Part 3: Additional provisions for the measurement of radiation efficiency*

3 Terms, definitions and symbols

Replace Clause 3 of IEC 60675:1994 with the following content:

For the purposes of this document, the terms and definitions given in IEC 60675:1994, IEC 60675:1994/AMD1:1998, and IEC 60675-3:2020 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>