BS EN 50559:2013+A1:2020
Incorporating corrigendum October 2015

BSI Standards Publication

Electric room heating, underfloor heating, characteristic of performance - Definitions, method of testing, sizing and formula symbols

National foreword

This British Standard is the UK implementation of EN 50559:2013+A1:2020. It supersedes BS EN 50559:2013, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CENELEC text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee CPL/59, Performance of household electrical appliances.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Date	Text affected
31 October 2015	Correction to BS identifier
31 May 2020	Implementation of CENELEC amendment A1:2020

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50559:2013+A1

April 2020

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English version

Electric room heating, underfloor heating, characteristics of performance - Definitions, method of testing, sizing and formula symbols

Chauffage électrique de locaux - Chauffage par le sol - Caractéristiques de performance - Définitions, méthode d'essai, calibrage et symboles de formule

Elektrische Raumheizung, Fußbodenheizung, Charakteristika der Gebrauchstauglichkeit - Definitionen, Testmethoden, Dimensionierung und Formelsymbole

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CENELEC

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

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European foreword

This document (EN 50559:2013) has been prepared by CLC/TC 59X "Performance of household and similar electrical appliances".

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2013-12-24
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2015-12-24

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Foreword to amendment A1

This document (EN 50559:2013/A1:2020) has been prepared by CLC/TC 59X “Performance of household and similar electrical appliances”.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2021-03-18
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2023-03-18

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This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2015/1188.

For the relationship with EU Directive 2015/1188 see informative Annex ZZ, which is an integral part of this document.

Introduction

No draft of this present preliminary standard has been published.

A preliminary standard is the result of standardisation work which, due to certain reservations about the contents or due to a compilation process deviating from a standard, has not yet been published by DIN.

The national working body UK 513.4 „Raumheizgeräte“ (Room Heating) of the DKE Deutsche Kommission Elektrotechnik Elektronik Informationstechnik im DIN und VDE (http://www.dke.de) is responsible for this preliminary standard.

In cases of a dated reference in the normative text, the reference is always applied to the issue being referred to.

The correlation between the quoted standard and the relevant German Standard is given in so far as a correlation exists, fundamentally by means of the number of the relevant IEC-Publication.

Example: IEC 60068 has been taken over by CENELEC as EN 60068, and incorporated into the German Standards as DIN EN 60068.

〖A1〉 Annexes D, E and ZZ are added for the purpose of performance testing according to Commission Regulation (EU) 2015/1188. 〈A1〗

1 Scope

This European Standard applies to electrical underfloor heating of dwellings and all other buildings whose use corresponds to dwellings or is at least similar, having a maximum load bearing in use of 4 kN/m².

This European Standard defines the main characteristics of electrical underfloor heating and establishes the method of testing of these characteristics as information for the user.

This European Standard does not deal with:

- installation and safety requirements;
- DIN VDE 0100-723.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1264-1, *Water based surface embedded heating and cooling systems — Part 1: Definitions and symbols*

EN 1264-2, *Water based surface embedded heating and cooling systems — Part 2: Floor heating: Prove methods for the determination of the thermal output using calculation and test methods*

EN 1264-3, *Water based surface embedded heating and cooling systems — Part 3: Dimensioning*

EN 1264-4*, Water based surface embedded heating and cooling systems — Part 4: Installation*

EN 1264-5*, Water based surface embedded heating and cooling systems — Part 5: Heating and cooling surfaces embedded in floors, ceilings and walls — Determination of the thermal output*

EN 12831, *Heating systems in buildings — Method for calculation of the design heat load*

EN 60335-2-96, *Household and similar electrical appliances — Safety — Part 2-96: Particular requirements for flexible sheet heating elements for room heating (IEC 60335-2-96)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
electrical underfloor heating system
electrical underfloor heating, the switching, control and regulation appliances and the electrical installation

3.1.1
underfloor heating
in situ flooring constructed as a heating system

Note 1 to entry: It is generally laid on a dry, level, load-bearing substructure.

3.1.2
underfloor direct heating
underfloor direct heating, by which the heat generated from electrical energy is transferred with the least possible time lag to the room to be heated mainly via the surface of the floor

Note 1 to entry: There is no restriction on the amount of time electrical energy can be converted into heat.