



**SLOVENSKI STANDARD**  
**oSIST prEN 50698:2019**  
**01-julij-2019**

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**Stanovanjski in stavbni elektronski sistemi (HBES) ter sistemi za avtomatizacijo in krmiljenje stavb (BACS) - Električna varnost in zahteve za elektromagnetno združljivost (EMC) radijske opreme**

Home and Building Electronic Systems (HBES) and BACS - Electrical safety and EMC requirements for radio equipment

**iTeh STANDARD PREVIEW**  
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Systèmes électroniques pour les foyers domestiques et les bâtiments (HBES) et SGTB - Exigences de sécurité électrique et de CEM pour les équipements radioélectriques

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**Ta slovenski standard je istoveten z: prEN 50698:2019**

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**ICS:**

33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general
35.240.67	Uporabniške rešitve IT v gradbeništvu	IT applications in building and construction industry
97.120	Avtomatske krmilne naprave za dom	Automatic controls for household use

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**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**DRAFT**  
**prEN 50698**

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ICS

English Version

## Home and Building Electronic Systems (HBES) and BACS - Electrical safety and EMC requirements for radio equipment

Systèmes électroniques pour les foyers domestiques et les  
bâtiments (HBES) et SGTB - Exigences de sécurité  
électrique et de CEM pour les équipements radioélectriques

To be completed

This draft European Standard is submitted to CENELEC members for enquiry.  
Deadline for CENELEC: 2019-07-05.

It has been drawn up by CLC/TC 205.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CENELEC 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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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**

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## European foreword

This document (prEN 50698:2019) has been prepared by CLC/TC 205 “Home and Building Electronic Systems (HBES)”.

This document is currently submitted to the Enquiry.

The following dates are proposed:

- latest date by which the existence of this document has to be announced at national level (doa) dor + 6 months
- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) dor + 12 months
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) dor + 36 months (to be confirmed or modified when voting)

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(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

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## 1 Scope

This document provides the electrical safety and EMC requirements and test for radio equipment intended to be part of Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS), for which no specific HBES/BACS product EMC and safety standard exists.

## 2 Normative references

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.

EN IEC 63044-3:2018, *Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 3: Electrical safety requirements*

EN IEC 63044-5-1:2018, *Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 5-1: EMC requirements, conditions and test set-up*

prEN 63044-5-2:2016, *Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 5-2: EMC requirements for HBES/BACS used in residential, commercial and light-industrial environments*

prEN 63044-5-3:2016, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 5-3: EMC requirements for HBES/BACS used in industry environment*

EN 61000-6-1:2007, *Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments*

EN 61000-6-2:2005, *Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments*

ETSI EN 301 489 (series), *Electromagnetic compatibility (EMC) standard for radio equipment and services*

NOTE: ETSI EN 301489 series is an undated reference as EN 50698 cannot make provision for the type of radio used by manufacturers. ETSI EN 301489 series is split into 52 different parts addressing different radio types. To maintain cross references with 52 dated references is an impossible mission. The document will always be obsolete. Moreover only reference to Clause 4 exclusion bands values is needed for EN 50698 which may evolve in time with the changes in radio environment. Therefore CLC TC205 considers the undated reference as required and justified in this very specific context.

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN IEC 63044-3:2018, Clause 3 and EN IEC 63044-5-1:2018, Clause 3, 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>

## 4 Safety Requirements

4.1 General Safety requirements and compliance criteria are those defined in EN IEC 63044-3:2018, Clause 5

4.2 Requirements are those defined in EN IEC 63044-3:2018, Clause 6

4.2.1 Requirements specific for installation are those defined in EN IEC 63044-3:2018, 6.4

## 5 EMC requirements

### 5.1 Requirements for emissions

- EN IEC 63044-5-1:2018, Clauses 4, 5, 6.1, 6.3 shall be applied for general requirements, performance criteria and standards test conditions prEN 63044-5-2:2016, 7.2 shall be applied for HBES/BACS to be installed in residential, commercial and light-industrial environments, according to the definition given in EN 61000-6-1:2007.
- prEN 63044-5-3:2016, 7.2 shall be applied for HBES/BACS to be installed in industrial environments, according to the definition given in EN 61000-6-2.

For all radio devices, exclusion bands apply. Exclusion bands are defined in the EUT relevant part of ETSI EN 301489 (series) Clause 4.

For devices in transmit mode:

The frequencies on which the transmitter part of the EUT is intended to operate shall be excluded from radiated emission measurements when performed in transmit mode of operation.

For devices in receive mode:

There shall be no frequency exclusion band applied to emission measurements of the receiver part of transceivers or the stand alone receiver under test, and/or associated ancillary equipment.

### 5.2 Requirements for immunity

- EN IEC 63044-5-1:2018, Clauses 4, 5, 6.1, 6.2 shall be applied for general requirements, performance criteria and standards test conditions.
- prEN 63044-5-2:2016, 7.1 shall be applied for HBES/BACS to be installed in residential, commercial and light-industrial environments, according to the definition given in EN 61000-6-1:2007.
- prEN 63044-5-3:2016, 7.1 shall be applied for HBES/BACS to be installed in industrial environments, according to the definition given in EN 61000-6-2:2005.

### 5.3 Requirements for fixed installations

These systems are intended to be installed in fixed installation. Clauses 4, 5 and 6 of EN IEC 63044 5-1:2018 provide the necessary requirements, performance criteria and tests conditions.