



**NSAI**  
Standards

Irish Standard  
I.S. EN 50491-6-1:2014

General requirements for Home and Building  
Electronic Systems (HBES) and Building  
Automation and Control Systems (BACS) --  
Part 6-1: HBES installations - Installation and  
planning

**I.S. EN 50491-6-1:2014**

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English version

**General requirements for Home and Building Electronic Systems (HBES)  
and Building Automation and Control Systems (BACS) -  
Part 6-1: HBES installations -  
Installation and planning**

Exigences générales pour systèmes  
électroniques pour les foyers domestiques  
et les bâtiments (HBES) et pour systèmes  
de gestion technique  
du bâtiment (SGTB) -  
Partie 6-1 : Installations des HBES -  
Planification et installation

Allgemeine Anforderungen an die  
Elektrische Systemtechnik für Heim und  
Gebäude (ESHG) und an Systeme der  
Gebäudeautomation (GA) -  
Teil 6-1: ESHG-Installationen -  
Installation und Planung

This European Standard was approved by CENELEC on 2013-11-25. 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.

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**CENELEC**

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels**

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## Foreword

This document (EN 50491-6-1:2014) has been prepared by CLC/TC 205 "Home and Building Electronic Systems (HBES)".

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) 2014-11-25
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-11-25

This European Standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

This European Standard is complementary to EN 50174-2, "Information technology – Cabling installation – Part 2: Installation planning and practices inside buildings" – Clause 10 "Homes". The couple of standards constitute the reference for the installation requirements of the home network which includes the telecommunications service distribution and the HBES.

This European Standard specifies the specific HBES installation requirements. EN 50174-2 gives the specific ICT and BCT cabling installation and planning requirements.

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## 1 Scope

This European Standard specifies the additional specific HBES requirements for the common rules for the planning and the installation of HBES home cabling systems. The structure is in accordance with EN 50174-2.

This European Standard focuses on requirements for HBES cabling systems in homes. Requirements for backbones cabling in buildings are also considered.

HBES radio frequency (RF) systems are considered as extensions or as alternative to cabled systems.

RF connections may have an impact on the infrastructure. Different infrastructure models are presented for the use of RF connections instead of wired ones (e.g. fewer installation spaces IS6).

Optical fibre HBES installation guidelines may be considered in future.

Power line systems are outside the scope of this European Standard.

## 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 50090 (all parts), *Home and Building Electronic Systems (HBES)*

EN 50090-5-3, *Home and Building Electronic Systems (HBES) – Part 5-3: Media and media dependent layers – Radio frequency*

CLC/TR 50090-9-2, *Home and Building Electronic Systems (HBES) – Part 9-2: Installation requirements – Inspection and testing of HBES installation*

EN 50131-5-3 *Alarm systems – Intrusion systems – Part 5-3: Requirements for interconnections equipment using radio frequency techniques*

EN 50173-4, *Information technology – Generic cabling systems – Part 4: Homes*

EN 50174 (all parts), *Information technology – Cabling installation*

EN 50174-2:2009, *Information technology – Cabling installation – Part 2: Installation planning and practices inside buildings*

EN 50491-2, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 2: Environmental conditions*

EN 50491-3, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 3: Electrical safety requirements*

EN 50491-4-1, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 4-1: General functional safety requirements for products intended to be integrated in Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)*

EN 50491-5-1, *General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 5-1: EMC requirements, conditions and test set-up*

EN 50491-5-2, *General requirements for 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 industry environment*

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