STN	**Elektronické systémy pre byty a budovy (HBES). Časť 5-3: Prenosové médium a vrstvy závislé od prenosového média. Rádiová frekvencia pre HBES triedy 1.**	**STN EN 50090-5-3** 36 8051

Home and Building Electronic Systems (HBES) - Part 5-3: Media and media dependent layers - Radio Frequency for HBES Class 1

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/16

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Home and Building Electronic Systems (HBES) - Part 5-3: Media and media dependent layers - Radio Frequency for HBES Class 1

Systèmes électroniques pour les foyers domestiques et les bâtiments (HBES) - Partie 5-3: Médias et couches dépendantes des médias - Radio Fréquence pour HBES Classe 1

Elektrische Systemtechnik für Heim und Gebäude (ESHG) - Teil 5-3: Medien und medienabhängige Schichten - Signalübertragung über Funk für ESHG Klasse 1

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

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European foreword

This document (EN 50090-5-3:2016) 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)	2016-11-02
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2018-11-02

This document supersedes EN 50090-5-3:2006.

EN 50090-5-3:2016 includes the following significant technical changes with respect to EN 50090-5-3:2006:

- the difference between this version and the previous version of Part 5-3 is that the previous version contained only a description of the HBES RF Ready solution, where the current version was extended with the upward compatible HBES RF Multi solution.

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Introduction

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1 Scope

This European Standard defines the mandatory and optional requirements for the medium specific Physical and Data Link Layer of HBES Radio Frequency.

Data Link Layer interfaces and general definitions that are medium independent are given in EN 50090-4-1.

This European standard defines the requirements for HBES RF Ready and HBES RF Multi devices. HBES RF Ready is a single RF channel system. HBES RF Multi is an RF multichannel evolution of HBES RF Ready system with 2 additional RF channels for fast reaction time products and 2 RF channels for slow reaction time products.

HBES RF Multi, specified below provides the following features:

- more reliability in Frame transmissions in presence of interferers.
- more efficiency when more HBES RF products are installed at the same location.
- mixing of permanent and non-permanent receiving products.
- mixing of fast and slow reaction time devices.
- Listen Before Talk.

Fast RF channels are mainly intended to be used with human controlled applications like for example lights, shutters… Slow RF channels are mainly intended to be used with non-permanent receivers for automatic applications like sensors (smoke, temperature, wind, etc.), heating control, etc.

Compatibility issues with products in compliance with the former HBES RF specification (HBES RF 1.1) and the new versions are considered in Clause 7 at the end of this document.

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 50090-1:2011, *Home and Building Electronic Systems (HBES) — Part 1: Standardization structure*

EN 50090-4-1, *Home and Building Electronic Systems (HBES) — Part 4-1: Media independent layers — Application layer for HBES Class 1*

EN 50090-4-2, *Home and Building Electronic Systems (HBES) — Part 4-2: Media independent layers — Transport layer, network layer and general parts of data link layer for HBES Class 1*

ETSI EN 300 220 (all parts), *Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW*