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Home and building electronic systems (HBES) and building automation and control systems (BACS) –
Part 5-3: EMC requirements for HBES/BACS used in industrial environments

Systèmes électroniques pour les foyers domestiques et les bâtiments (HBES) et systèmes de gestion technique du bâtiment (SGTB) –
Partie 5-3: Exigences CEM relatives aux HBES/SGTB destinés à être utilisés en environnement industriel

IEC 63044-5-3:2017-01+AMD1:2022-06 CSV(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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HOME AND BUILDING ELECTRONIC SYSTEMS (HBES) AND BUILDING AUTOMATION AND CONTROL SYSTEMS (BACS) –

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This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 63044-5-3 edition 1.1 contains the first edition (2017-01) [documents 23/738/CDV and 23/750/RVC] and its amendment 1 (2022-06) [documents 23/1003/FDIS and 23/1009/RVD].

This Final version does not show where the technical content is modified by amendment 1. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 63044-5-3 has been prepared by IEC technical committee 23: Electrical accessories.

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

This International Standard is to be used in conjunction with IEC 63044-5-1:2017 and with IEC 63044-5-1:2017/AMD1:2022.

A list of all parts in the IEC 63044 series, published under the general title *Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under webstore.iec.ch in the data related to the specific publication. At this date, the publication will be

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- withdrawn,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

INTRODUCTION

The IEC 63044 series deals with developing and testing Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS).

The IEC 63044-5 series ensures a common level of EMC requirements for HBES/BACS devices.

HOME AND BUILDING ELECTRONIC SYSTEMS (HBES) AND BUILDING AUTOMATION AND CONTROL SYSTEMS (BACS) –

Part 5-3: EMC requirements for HBES/BACS used in industrial environments

1 Scope

Clause 1 of IEC 63044-5-1:2017 and with IEC 63044-5-1:2017/AMD1:2022 applies, with the following modification:

Replace the last paragraph with the following:

This document specifies EMC requirements for HBES/BACS to be installed in industrial environments, according to the definition given in IEC 61000-6-2.

NOTE Industrial environment covers the office spaces that may be present in industrial premises.

Industrial automation systems are outside the scope.

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.

IEC 63044-5-1:2017, *Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) – Part 5-1: EMC requirements, conditions and test set-up*
IEC 63044-5-1:2017/AMD1:2022

IEC 61000-4-4, *Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test*

IEC 61000-4-5, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test*

IEC 61000-4-6, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*

IEC 61000-6-2, *Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity standard for industrial environments*

IEC 61000-6-4:2018, *Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments*

3 Terms, definitions and abbreviated terms

For the purposes of this document, the terms, definitions and abbreviations given in IEC 63044-5-1 and of IEC 63044-5-1:2017/AMD1:2022 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 General requirements

Clause 4 of IEC 63044-5-1:2017 and of IEC 63044-5-1:2017/AMD1:2022 applies.

5 Performance criteria

Clause 5 of IEC 63044-5-1:2017 and of IEC 63044-5-1:2017/AMD1:2022 applies.

6 Standard test conditions

Clause 6 of IEC 63044-5-1:2017 and of IEC 63044-5-1:2017/AMD1:2022 applies.

7 EMC requirements

7.1 Immunity requirements

For products used in industrial environments, the immunity requirements of the generic standard IEC 61000-6-2 apply to enclosure, AC/DC power and I/O signal ports. The performance criteria and the test set-ups are defined in IEC 63044-5-1.

Test levels for HBES/BACS network ports are specified in Table 1.