SLOVENSKI STANDARD
SIST EN 62320-3:2015

01-september-2015

Pomorska navigacijska in radiokomunikacijska oprema in sistemi - Sistemi za avtomatično identifikacijo (AIS) - 3. del: Simpleksna repetitorska postaja AIS - Minimalne obratovalne in tehnične zahteve, preskusne metode in zahtevani rezultati preskušanja

Maritime navigation and radiocommunication equipment and systems - Automatic identification systems (AIS) - Part 3: AIS Simplex Repeater Station - Minimum operational and performance requirements, methods of testing and required test results

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt – Automatisches Identifikationssystem (AIS) - Teil 3: Repeater Stationen – Mindest-Betriebs- und -Leistungsanforderungen – Prüfverfahren und geforderte Prüfergebnisse

Matériels et systèmes de navigation et de radiocommunication maritimes - Systèmes d'identification automatique (AIS) - Partie 3: Stations de répéteurs - Exigences de fonctionnement et de performance minimales - Méthodes d'essai et résultats d'essai exigés

Ta slovenski standard je istoveten z: **EN 62320-3:2015**

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47.020.70	Navigacijska in krmilna oprema	Navigation and control equipment

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Maritime navigation and radiocommunication equipment and systems - Automatic identification systems (AIS) - Part 3: Repeater stations - Minimum operational and performance requirements - Methods of test and required test results (IEC 62320-3:2015)

Matériels et systèmes de navigation et de radiocommunication maritimes - Systèmes d'identification automatique (AIS) - Partie 3: Stations de répéteurs - Exigences de fonctionnement et de performance minimales - Méthodes d'essai et résultats d'essai exigés (IEC 62320-3:2015)

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Automatisches Identifikationssystem (AIS) - Teil 3: Repeater Stationen - Mindest-Betriebs- und -Leistungsanforderungen - Prüfverfahren und geforderte Prüfergebnisse (IEC 62320-3:2015)

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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

Ref. No. EN 62320-3:2015 E

Foreword

The text of document 80/744/FDIS, future edition 1 of IEC 62320-3, prepared by IEC/TC 80 "Maritime navigation and radiocommunication equipment and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62320-3:2015.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-12-04
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-03-04

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Endorsement notice

The text of the International Standard IEC 62320-3:2015 was approved by CENELEC as a European Standard without any modification.

IEC 61162-2	NOTE Harmonized as EN 61162-2.
IEC 61162-450	NOTE Harmonized as EN 61162-450.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60945	-	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	EN 60945	-
IEC 61162-1	-	Maritime navigation and radiocommunication equipment and systems - Digital interfaces -- Part 1: Single talker and multiple listeners	EN 61162-1	-
ITU Radio-Regulations, Appendix 18		Table of transmitting frequencies in the VHF maritime mobile band		-
ITU-R Recommendation M.1084	-	Interim solutions for improved efficiency in the use of the band 156-174 MHz by stations in the maritime mobile service		-
ITU-R Recommendation M.1371	-	Technical characteristics for a universal shipborne automatic identification system using time division multiple access in the VHF maritime mobile band		-
ITU-R Recommendation M.585	-	Assignment and use of identities in the maritime mobile service		-
ITU-R Recommendation O.153	-	O.153 : Basic parameters for the measurement of error performance at bit rates below the primary rate		-

IEC 62320-3

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INTERNATIONAL STANDARD

colour inside

Maritime navigation and radiocommunication equipment and systems – Automatic identification system (AIS) – Part 3: Repeater stations – Minimum operational and performance requirements – Methods of test and required test results

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – AUTOMATIC IDENTIFICATION SYSTEM (AIS) –

Part 3: Repeater stations – Minimum operational and performance requirements – Methods of test and required test results

FOREWORD

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International Standard IEC 62320-3 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

The text of this standard is based on the following documents:

FDIS	Report on voting
80/744/FDIS	80/752/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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

A list of all parts in the IEC 62320 series, published under the general title, *Maritime navigation and radiocommunication equipment and systems – Automatic identification system (AIS)*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://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.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

Chapter V of the 1974 SOLAS Convention requires mandatory carriage of Automatic Identification System (AIS) equipment on all vessels constructed on or after 01 July 2002. Implementation for other types and sizes of SOLAS Convention vessels was required to be completed not later than 31 December 2004.

SOLAS Chapter V, Regulation 19, section 2.4.5 states that AIS shall:

a) provide automatically to appropriate equipped shore stations, other ships and aircraft information, including ship's identity, type, position, course, speed, navigational status and other safety-related information;

b) receive automatically such information from similarly fitted ships;

c) monitor and track ships; and

d) exchange data with shore-based facilities.

In addition, the IMO Performance Standards for AIS states that:

- The AIS should improve the safety of navigation by assisting in the efficient navigation of ships, protection of the environment, and operation of Vessel Traffic Services (VTS), by satisfying the following functional requirements:
  1) in a ship-to-ship mode for collision avoidance;
  2) as a means for littoral States to obtain information about a ship and its cargo; and
  3) as a VTS tool, i. e. ship-to-shore (traffic management).
- The AIS should be capable of providing to ships and to competent authorities, information from the ship, automatically and with the required accuracy and frequency, to facilitate accurate tracking. Transmission of the data should be with the minimum involvement of ship's personnel and with a high level of availability.

The provision of Shore Based AIS will be necessary to attain the full benefit of the SOLAS Convention requirements.

This standard provides the minimum operational and performance requirements, methods of test and the required test results for AIS repeater stations. The testing is divided into two parts, the logical tests and the transceiver tests. These are captured in Clause 6 and Clause 8 respectively.

MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – AUTOMATIC IDENTIFICATION SYSTEM (AIS) –

Part 3: Repeater stations – Minimum operational and performance requirements – Methods of test and required test results

1 Scope

This part of IEC 62320 specifies the minimum operational and performance requirements, methods of testing and required test results for AIS repeater stations, compatible with the performance standards adopted by IMO Res. MSC.74 (69), annex 3, Universal AIS. It incorporates the technical characteristics of non-shipborne, fixed station AIS equipment, included in Recommendation ITU-R M.1371 and IALA Recommendation A-124. Where applicable, it also takes into account the ITU Radio Regulations. This standard takes into account other associated IEC International Standards and existing national standards, as applicable.

This standard is applicable for AIS repeater stations. It does not include specifications for the display of AIS data on shore.

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.

IEC 60945, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61162-1, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 1: Single talker and multiple listeners*

ITU-R Recommendation M.585, *Assignment and use of identities in the maritime mobile service*

ITU-R Recommendation M.1084, *Interim solutions for improved efficiency in the use of the band 156-174 MHz by stations in the maritime mobile service*

ITU-R Recommendation M.1371, *Technical characteristics for a universal shipborne automatic identification system using time division multiple access in the VHF maritime mobile band*

ITU-T Recommendation O.153, *Basic parameters for the measurement of error performance at bit rates below the primary rate*

ITU Radio Regulations, Appendix 18