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

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 62320-3:2015 sisaldab Euroopa standardi EN 62320-3:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 62320-3:2015 consists of the English text of the European standard EN 62320-3:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.03.2015.	Date of Availability of the European standard is 20.03.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 19

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62320-3

March 2015

ICS 47.020.70

English Version

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)

This European Standard was approved by CENELEC on 2015-03-04. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

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		-

CONTENTS

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.