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Standards

Irish Standard
I.S. EN 62288:2014

Maritime navigation and radiocommunication equipment and systems - Presentation of navigation-related information on shipborne navigational displays - General requirements, methods of testing and required test results

I.S. EN 62288:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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English Version

**Maritime navigation and radiocommunication equipment and systems - Presentation of navigation-related information on shipborne navigational displays - General requirements, methods of testing and required test results
(IEC 62288:2014)**

Équipements et systèmes de navigation et de radiocommunications maritimes - Présentation des informations relatives à la navigation sur des affichages de navigation de bord - Exigences générales, méthodes d'essai et résultats d'essai exigibles
(CEI 62288:2014)

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Darstellung von navigationsbezogenen Informationen auf Navigationsanzeigen für Schiffe - Allgemeine Anforderungen, Prüfverfahren und geforderte Prüfergebnisse
(IEC 62288:2014)

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Europäisches Komitee für Elektrotechnische Normung

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

Foreword

The text of document 80/733/FDIS, future edition 2 of IEC 62288, 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 62288:2014.

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) 2015-05-14
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-08-14

This document supersedes EN 62288:2008.

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61162	NOTE	Harmonized in EN 61162 series.
IEC 61924-2	NOTE	Harmonized as EN 61924-2.
ISO 9241-8:1997	NOTE	Harmonized as EN ISO 9241-8:1997 (not modified).
ISO 9241-12:1998	NOTE	Harmonized as EN ISO 9241-12:1998 (not modified).
ISO 13406-2:2001	NOTE	Harmonized as EN ISO 13406-2:2001 (not modified).

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60945	2002	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	EN 60945	2002
IEC 61174	-	Maritime navigation and radiocommunication equipment and systems - Electronic chart display and information system (ECDIS) - Operational and performance requirements, methods of testing and required test results	EN 61174	-
IEC 61966-4	-	Multimedia systems and equipment - Colour measurement and management - Part 4: Equipment using liquid crystal display panels	EN 61966-4	-
IEC 62065	-	Maritime navigation and radiocommunication equipment and systems - Track control systems - Operational and performance requirements, methods of testing and required test results	EN 62065	-
IEC 62388	-	Maritime navigation and radiocommunication equipment and systems - Shipborne radar - Performance requirements, methods of testing and required test results	EN 62388	-
IHO S-52	-	Specifications for Chart Content and Display Aspects of ECDIS	-	-
IHO S-52 Annex A of Appendix 2	-	IHO ECDIS presentation library	-	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IMO A.694(17)	1991	General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids	-	-
IMO A.1021(26)	2009	Code on alerts and indicators	-	-
IMO MSC.191(79)	2004	Performance standards for the presentation of navigation-related information on shipborne navigational displays	-	-
IMO MSC.192(79)	2004	Performance standards for radar equipment	-	-
IMO MSC.232(82)	2006	Performance standards for electronic chart display and information systems (ECDIS)	-	-
IMO MSC.252(83)	2007	Performance standards for integrated navigation systems (INS)	-	-
IMO MSC.302(87)	2010	Performance standards for Bridge Alert Management (BAM)	-	-
IMO SN.1/Circ.243/ Rev.1	2014	Guidelines for the presentation of navigation-related symbols, terms and abbreviations	-	-
VESA-2001-6	-	Flat Panel Display Measurements (FPDM)	-	-



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Edition 2.0 2014-07

INTERNATIONAL STANDARD



**Maritime navigation and radiocommunication equipment and systems –
Presentation of navigation-related information on shipborne navigational
displays – General requirements, methods of testing and required test results**





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IEC 62288

Edition 2.0 2014-07

INTERNATIONAL STANDARD



**Maritime navigation and radiocommunication equipment and systems –
Presentation of navigation-related information on shipborne navigational
displays – General requirements, methods of testing and required test results**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – PRESENTATION OF NAVIGATION-RELATED INFORMATION ON SHIPBORNE NAVIGATIONAL DISPLAYS – GENERAL REQUIREMENTS, METHODS OF TESTING AND REQUIRED TEST RESULTS

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62288 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

This standard supports the performance standards for the presentation of navigation-related information on shipborne navigational displays, adopted by the IMO in resolution MSC.191(79) in December 2004.

This second edition cancels and replaces the first edition published in 2008 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- References to IBS have been removed as IMO has revoked MSC.64(67) Annex 1:1996, Performance standards for integrated bridge systems (IBS).

- Subclause 4.9 (Alerts and indicators) has been revised to align the requirements with the IMO resolutions MSC.252(83), MSC.302(87) and A.1021(26) published since MSC.191(79), together with a new Annex F for alert related icons.
- Clause 5 (Presentation of operational information) has been revised with a new requirement added for merging AIS targets from multiple sources.
- Test methods have been reviewed and further guidance on testing added to Annex D. A new normative Annex G has been added for testing of colours, intensity and flicker.
- Annex A (Presentation of colours and symbols) has been revised with AIS AtoN symbols, AIS-SART symbol and wheel over position symbol redefined, and new symbols added for AIS SAR aircraft, AIS SAR vessel, MSI and AIS application specific messages.

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

FDIS	Report on voting
80/733/FDIS	80/738/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.

NOTE All text in this standard whose wording is identical to text contained in an IMO document is printed in *italics*. Reference to the document is noted at the beginning of the paragraph. The notation contains a prefix referring to the document and a suffix with the paragraph number from the document (for example, (MSC191/1); (SN243/1), etc.).

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

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – PRESENTATION OF NAVIGATION-RELATED INFORMATION ON SHIPBORNE NAVIGATIONAL DISPLAYS – GENERAL REQUIREMENTS, METHODS OF TESTING AND REQUIRED TEST RESULTS

1 Scope

This International Standard specifies the general requirements, methods of testing, and required test results, for the presentation of navigation-related information on shipborne navigational displays in support of IMO resolutions MSC.191(79) and MSC.302(87).

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 60945:2002, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61174, *Maritime navigation and radiocommunication equipment and systems – Electronic chart display and information system (ECDIS) – Operational and performance requirements, methods of testing and required test results*

IEC 61966-4, *Multimedia systems and equipment – Colour measurement and management – Part 4: Equipment using liquid crystal display panels*

IEC 62065, *Maritime navigation and radiocommunication equipment and systems – Track control systems – Operational and performance requirements, methods of testing and required test results*

IEC 62388, *Maritime navigation and radiocommunication equipment and systems – Shipborne radar – Performance requirements, methods of testing and required test results*

IHO S-52 *Specifications for chart content and display aspects of ECDIS*

IHO S-52 Annex A, *IHO ECDIS presentation library*

IMO A.694(17):1991, *General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids*

IMO MSC.191(79):2004, *Performance standards for the presentation of navigation related information on shipborne navigational displays*

IMO MSC.192(79):2004, *Performance standards for radar equipment*

IMO MSC.232(82):2006, *Revised performance standards for electronic chart display and information systems (ECDIS)*

IMO SN.1/Circ.243/Rev.1:2014, *Guidelines for the presentation of navigation related symbols, terms and abbreviations*

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