INTERNATIONAL STANDARD

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Fifth edition
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Electrical installations in ships –

Part 502: Tankers – Special features

Installations électriques à bord des navires –

Partie 502: Navires-citernes – Caractéristiques spéciales

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRICAL INSTALLATIONS IN SHIPS –

Part 502: Tankers – Special features

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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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3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
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5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60092-502 has been prepared by IEC technical committee 18: Electrical installations of ships and of mobile and fixed offshore units.

This fifth edition cancels and replaces the fourth edition published in 1994.

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

FDIS	Report on voting
18/853/FDIS	18/862/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.

Annexes A, B, C, D and E are for information only.

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

INTRODUCTION

This standard introduces the zonal concept for hazardous area classification and permits the use of earthed distribution systems.

It should be noted, however, that it is not in full concurrence with the requirements for electrical installations in hazardous areas given in Clause 10.2 of the IBC Code[1)] and Clause 10.2 of the IGC Code[2)] and the system earthing requirements of Regulations II-1/45.4.1 and 45.4.3 of SOLAS[3)].

Until the International Maritime Organization has decided upon corresponding amendments to the Codes and to SOLAS, users of this standard are advised to ask the appropriate authority to consider equivalence in accordance with the “Equivalents” provisions of Clause 1.4 of the IBC Code and Clause 1.4 of the IGC Code and Regulation I/5 of SOLAS.

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1) International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (1994 edition).

2) International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (1993 edition).

3) SOLAS – the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1978 (Consolidated edition, 1997).

ELECTRICAL INSTALLATIONS IN SHIPS –

Part 502: Tankers – Special features

1 Scope

This part of IEC 60092 deals with the electrical installations in tankers carrying liquids which are flammable, either inherently, or due to their reaction with other substances, or flammable liquefied gases.

The requirements in other parts of IEC 60092 also apply to tankers, unless otherwise mentioned in this standard.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60092. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 60092 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60050(426):1990, *International Electrotechnical Vocabulary (IEV) – Chapter 426: Electrical apparatus for explosive atmospheres*

IEC 60079-0:1983, *Electrical apparatus for explosive gas atmospheres – Part 0: General requirements*

IEC 60079-1:1990, *Electrical apparatus for explosive gas atmospheres – Part 1: Construction and verification test of flameproof enclosures of electrical apparatus*

IEC 60079-2:1983, *Electrical apparatus for explosive gas atmospheres – Part 2: Electrical apparatus, type of protection 'p'*

IEC 60079-4:1975, *Electrical apparatus for explosive gas atmospheres – Part 4: Method of test for ignition temperature*

IEC 60079-5:1997*, Electrical apparatus for explosive gas atmospheres – Part 5: Powder filling 'q'*

IEC 60079-6:1995, *Electrical apparatus for explosive gas atmospheres – Part 6: Oil-immersion 'o'*

IEC 60079-7:1990, *Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety 'e'*

IEC 60079-10:1968, *Electrical apparatus for explosive gas atmospheres – Part 10: Classification of hazardous areas*

IEC 60079-11:1991, *Electrical apparatus for explosive gas atmospheres – Part 11: Intrinsic safety 'i'*

IEC 60079-12:1978, *Electrical apparatus for explosive gas atmospheres – Part 12: Classification of mixtures of gases or vapours with air according to their maximum experimental safe gaps and minimum igniting currents*

IEC 60079-14:1996, *Electrical apparatus for explosive gas atmospheres – Part 14: Electrical installation in hazardous areas (other than mines)*

IEC 60079-15:1987, *Electrical apparatus for explosive gas atmospheres – Part 15: Electrical apparatus with type of protection 'n'*

IEC 60079-17:1990, *Electrical apparatus for explosive gas atmospheres – Part 17: Inspection and maintenance of electrical installations in hazardous areas (other than mines)*

IEC 60079-18:1992, *Electrical apparatus for explosive gas atmospheres – Part 18: Encapsulation 'm'*

IEC 60079-19:1993, *Electrical apparatus for explosive gas atmospheres – Part 19: Repair and overhaul for apparatus used in explosive atmospheres (other than mines or explosives)*

IEC 60092-101:1994, *Electrical installations in ships – Part 101: Definitions and general requirements*

IEC 60092-201:1994, *Electrical installations in ships – Part 201: System design – General*

IEC 60092-202:1994, *Electrical installations in ships – Part 202: System design – Protection*

IEC 60092-350:1988, *Electrical installations in ships – Part 350: Low-voltage shipboard power cables – General construction and test requirements*

IEC 60092-401:1980, *Electrical installations in ships – Part 401: Installation and test of completed installation*