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*Electrical installations in ships –
Part 507: Pleasure craft*

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Electrical installations in ships
Part 507: Pleasure craft
(IEC 60092-507:2000)

Installations électriques
à bord des navires
Partie 507: Navires de plaisance
(CEI 60092-507:2000)

Elektrische Anlagen auf Schiffen
Teil 507: Yachten
(IEC 60092-507:2000)

This European Standard was approved by CENELEC on 2000-04-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 18/873/FDIS, future edition 1 of IEC 60092-507, prepared by IEC TC 18, Electrical installations of ships and of mobile and fixed offshore units, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60092-507 on 2000-04-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2001-01-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2003-04-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annex ZA is normative and annexes A and B are informative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60092-507:2000 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050	Series	International Electrotechnical Vocabulary	-	-
IEC 60065 (mod)	1998	Audio, video and similar electronic apparatus - Safety requirements	EN 60065 + corr. June	1998 1999
IEC 60079	Series	Electrical apparatus for explosive gas atmospheres	EN 50014 & related ENs EN 60079	Series
IEC 60092	Series	Electrical installations in ships	-	-
IEC 60092-101	1994	Part 101: Definitions and general requirements	-	-
IEC 60092-301	1980	Part 301: Equipment - Generators and motors	-	-
IEC 60092-302	1997	Part 302: Low-voltage switchgear and controlgear assemblies	-	-
IEC 60092-303	1980	Part 303: Equipment - Transformers for power and lighting	-	-
IEC 60092-306	1980	Part 306: Equipment - Luminaires and accessories	-	-
IEC 60092-307	1980	Part 307: Equipment - Heating and cooking appliances	-	-
IEC 60092-350	1988	Part 350: Low-voltage shipboard power cables - General construction and test requirements	-	-
IEC 60092-352	1997	Part 352: Choice and installation of cables for low-voltage power systems	-	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60228 (mod)	1978	Conductors of insulated cables First supplement: Guide to the dimensional limits of circular conductors	HD 383 S2 ¹⁾	1986
IEC 60309-2	1997	Plugs, socket-outlets and couplers for industrial purposes Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories	EN 60309-2	1998
IEC 60332-1 ²⁾	1993	Tests on electric cables under fire conditions Part 1: Test on a single vertical insulated wire or cable	-	-
IEC 60332-3	1992	Part 3: Tests on bunched wires or cables	HD 405.3 S1	1993
IEC 60364 (mod)	Series	Electrical installations of buildings	HD 384	Series
IEC 60364-7-709	1994	Part 7: Requirements for special installations or locations -- Section 709: Marinas	-	-
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
IEC 60533	1999	Electrical and electronic installations in ships Electronic compatibility	-	-
IEC 60536	1976	Classification of electrical and electronic equipment with regard to protection against electric shock	HD 366 S1	1977
IEC 60724	1984	Guide to the short-circuit temperature limits of electric cables with a rated voltage not exceeding 0,6/1,0kV	-	-
IEC 60742 (mod)	1983	Isolating transformers and safety isolating transformers - Requirements	EN 60742 ³⁾	1995
IEC 60898	1995 ⁴⁾	Electrical accessories - Circuit-breakers for overcurrent protection for household and similar installations	-	-
IEC 60934 (mod)	1993	Circuit-breakers for equipment (CBE)	EN 60934 + A11	1994 1998

1) HD 383 S2 includes supplement A:1982 to IEC 60228.

2) EN 50265-1:1998 and EN 50265-2-1:1998, which are related to IEC 60332-1:1993, apply.

3) EN 60742 includes A1:1992 to IEC 60742.

4) IEC 60898:1987 + corrigendum May 1988 + A2:1990 + A3:1990 + corrigendum August 1990, mod., are harmonized as EN 60898:1991. This European Standard applies with its corrigendum October 1991 and its amendments A1:1991 (IEC/A1:1989) and A11:1994 up to A19:2000.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60945	1996	Maritime navigation and radiocommunication equipment and systems General requirements - Methods of testing and required test results	EN 60945	1997
IEC 60947(mod)	Series	Low-voltage switchgear and controlgear	EN 60947	Series
IEC 61140	1997	Protection against electric shock - Common aspects for installation and equipment	-	-

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ELECTRICAL INSTALLATIONS IN SHIPS –

Part 507: Pleasure craft

1 Scope

This part of IEC 60092 specifies requirements for the design, construction and installation of electrical systems in pleasure craft. It applies to pleasure craft for inland waters and to seagoing pleasure craft.

The standard applies to the following types of electrical system in pleasure craft which have a length of 24 m to 50 m, or which have a gross registered tonnage not exceeding 500 grt:

- a) single-phase alternating current systems which operate at a nominal voltage not exceeding 250 V;
- b) three-phase alternating current systems which operate at a nominal voltage not exceeding 500 V;
- c) direct current systems which operate at a nominal voltage not exceeding 50 V.

The standard also applies to three-phase alternating current systems which operate at a nominal voltage not exceeding 500 V, in pleasure craft which have a length of less than 24 m.

NOTE 1 For alternating current systems having voltages exceeding 250 V single-phase or 500 V three-phase, and for direct current systems exceeding 50 V, and for craft larger than 500 grt or with a length greater than 50 m, other standards within the IEC 60092 series apply.

NOTE 2 Attention is drawn to the Recreational Craft Directive 94/25/EC of the European Parliament and of the Council, dated 16 June 1994.

NOTE 3 For pleasure craft less than 24 m in length, the following standards apply:

- for direct current installations which operate at a nominal voltage not exceeding 50 V: ISO 10133;
- for alternating current installations which operate at a nominal voltage not exceeding 250 V single-phase: ISO 13297.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60092. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, 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. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

IEC 60050 (all parts), *International Electrotechnical Vocabulary*

IEC 60065:1998, *Audio, video and similar electronic apparatus – Safety requirements*

IEC 60079 (all parts), *Electrical apparatus for explosive gas atmospheres*

IEC 60092 (all parts), *Electrical installations in ships*

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

IEC 60092-301:1980, *Electrical installations in ships – Part 301: Equipment – Generators and motors*

IEC 60092-302:1997, *Electrical installations in ships – Part 302: Low-voltage switchgear and controlgear assemblies*

IEC 60092-303:1980, *Electrical installations in ships – Part 303: Equipment – Transformers for power and lighting*

IEC 60092-306:1980, *Electrical installations in ships – Part 306: Equipment – Luminaires and accessories*

IEC 60092-307:1980, *Electrical installations in ships – Part 307: Equipment – Heating and cooking appliances*

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

IEC 60092-352:1997, *Electrical installations in ships – Part 352: Choice and installation of cables for low-voltage power systems*

IEC 60228:1978, *Conductors of insulated cables*

IEC 60309-2:1997, *Plugs, socket-outlets and couplers for industrial purposes – Part 2: Dimensional interchangeability requirements for pin and contact-tubes accessories*

IEC 60332-1:1993, *Tests on electric cables under fire conditions – Part 1: Tests on a single vertical insulated wire or cable*

IEC/TR2 60332-3:1992, *Tests on electric cables under fire conditions – Part 3: Tests on bunched wires or cables*

IEC 60364 (all parts), *Electrical installations of buildings*

IEC 60364-7-709:1994, *Electrical installations of buildings – Part 7: Requirements for special installations or location – Section 709: Marinas and pleasure craft*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 60533: —, *Electromagnetic compatibility of electrical and electronic installations in ships* ¹⁾

IEC 60536:1976, *Classification of electrical and electronic equipment with regard to protection against electric shock*

IEC 60724:1984, *Guide to the short-circuit temperature limits of electric cables with a rated voltage not exceeding 0,6/1,0 kV*

IEC 60742:1983, *Isolating transformers and safety isolating transformers – Requirements*

1) To be published.

IEC 60898:1995, *Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations*

IEC 60934:1993, *Circuit breakers for equipment (CBE)*

IEC 60945:1996, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 60947 (all parts), *Low-voltage switchgear and controlgear*

IEC 61140:1997, *Protection against electric shock – Common aspects for installation and equipment*

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