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NSAI Standards

Irish Standard
I.S. EN ISO 13297:2021

Small craft - Electrical systems - Alternating and direct current installations (ISO 13297:2020)

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This document is based on:	*Published:*
EN ISO 13297:2021	2021-04-14

This document was published under the authority of the NSAI and comes into effect on:	ICS number:
2021-05-06	47.080
	NOTE: If blank see CEN/CENELEC cover page

NSAI	T +353 1 807 3800	Sales:
1 Swift Square,	F +353 1 807 3838	T +353 1 857 6730
Northwood, Santry	E standards@nsai.ie	F +353 1 857 6729
Dublin 9	W NSAI.ie	W standards.ie

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National Foreword

I.S. EN ISO 13297:2021 is the adopted Irish version of the European Document EN ISO 13297:2021, Small craft - Electrical systems - Alternating and direct current installations (ISO 13297:2020)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 13297

April 2021

ICS 47.080

Supersedes EN ISO 10133:2017, EN ISO 13297:2018

English Version

Small craft - Electrical systems - Alternating and direct current installations (ISO 13297:2020)

Petits navires - Installations électriques - Installations à courant alternatif et continu (ISO 13297:2020)

Kleine Wasserfahrzeuge - Elektrische Systeme - Wechselstrom- und Gleichstromanlagen (ISO 13297:2020)

This European Standard was approved by CEN on 6 July 2020.

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Contents

Page

European foreword **3**

Annex ZA (informative) **Relationship between this European Standard and the Essential Requirements of Directive 2013/53/EU aimed to be covered** **4**

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European foreword

This document (EN ISO 13297:2021) has been prepared by Technical Committee ISO/TC 188 "Small craft" in collaboration with CCMC.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2021, and conflicting national standards shall be withdrawn at the latest by October 2021.

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

This document supersedes EN ISO 10133:2017 and EN ISO 13297:2018.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 13297:2020 has been approved by CEN as EN ISO 13297:2021 without any modification.

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Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of Directive 2013/53/EU aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/542 C(2015) 8736 final to provide one voluntary means of conforming to Essential Requirements of Directive 2013/53/EU.

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Directive 2013/53/EU

Essential Requirements of Directive 2013/53/EU	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
Annex I, Part A, 5.3 - Electrical systems	All clauses except Clause 26, Annex A	This standard does not deal with battery ventilation to prevent the accumulation of explosive gases or electric propulsion circuits.
Annex I, Part A, 5.6.1 - Fire protection; general	Clause 20.6	In respect of routing electrical conductors away from exhaust components and heat sources.
Annex I, Part A, 2.5 - Owner's manual	Clause 26, Annex B	Annex B specifies the information to be included in the owner's manual, it does specify the requirements for the owner's manual

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

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INTERNATIONAL STANDARD

ISO 13297

Fifth edition
2020-12

Small craft — Electrical systems — Alternating and direct current installations

Petits navires — Installations électriques — Installations à courant alternatif et continu

Reference number
ISO 13297:2020(E)

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Contents

Page

Foreword ... **iv**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 General requirements, DC and AC systems ... **5**
5 General requirements, DC systems ... **6**
6 General requirements, AC systems ... **7**
7 Marking, AC systems ... **8**
8 Batteries, DC systems ... **9**
9 Battery-disconnect switch, DC systems ... **11**
10 Power source options, AC systems ... **11**
11 Inverters and inverter/chargers, AC systems ... **12**
12 Overcurrent protection, DC systems ... **13**
13 Overcurrent protection, AC systems ... **14**
13.1 General ... 14
13.2 Supply circuits ... 14
13.3 Branch circuits ... 14
14 Ground-fault protection/earth-leakage protection, AC systems ... **15**
15 Panel boards (switchboards), DC and AC systems ... **15**
16 Panel boards (switchboards), AC systems ... **15**
17 Conductors, DC and AC systems ... **15**
18 Conductors, DC systems ... **16**
19 Conductors, AC systems ... **16**
20 System wiring, DC and AC systems ... **17**
21 System wiring, DC systems ... **19**
22 Socket outlets, DC systems ... **19**
23 Socket outlets, AC systems ... **19**
24 Appliances and equipment, AC systems ... **19**
25 Ignition protection, DC and AC systems ... **19**
26 Owner's manual ... **20**
Annex A (normative) **Conductor requirements** ... **21**
Annex B (normative) **Instructions to be included with owner's manual** ... **23**
Annex C (informative) **Recommended system tests** ... **24**
Annex D (informative) **Typical AC system diagrams** ... **25**
Annex E (informative) **Overcurrent protection location options** ... **32**
Bibliography ... **34**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 188, *Small craft*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 464, *Small craft*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition of ISO 13297 cancels and replaces ISO 13297:2014 and ISO 10133:2012, which have been technically revised.

The main changes compared to the previous editions are as follows:

— combined the standard for alternating current (ISO 13297:2014) and the standard for direct current (ISO 10133:2012) into a single marine electrical standard.

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Small craft — Electrical systems — Alternating and direct current installations

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1 Scope

This document specifies the requirements for the design, construction and installation of the following types of DC and AC electrical systems, installed on small craft either individually or in combination:

a) extra-low-voltage direct current (DC) electrical systems that operate at nominal potentials of 50 V DC or less;

b) single-phase alternating current (AC) systems that operate at a nominal voltage not exceeding AC 250 V.

This document does not cover the following:

— electrical propulsion systems of direct current less than 1 500 V DC, single-phase alternating current up to 1 000 V AC, and three-phase alternating current up to 1 000 V AC, which are addressed by ISO 16315;

— any conductor that is part of an outboard engine assembly and that does not extend beyond the outboard engine manufacturers supplied cowling;

— three-phase AC installations that operate at a nominal voltage not exceeding 500 V AC, which are addressed by IEC 60092-507.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 7010:2019, *Graphical symbols — Safety colours and safety signs — Registered safety signs*

ISO 8846:1990, *Small craft — Electrical devices — Protection against ignition of surrounding flammable gases*

ISO 10240:2019, *Small craft — Owner's manual*

IEC 60309-2:1999, *Plugs, socket-outlets and couplers for industrial purposes — Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories*

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

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

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