VÄIKELAEVAD. ELEKTRISÜSTEEMID. VAHELDUVVOOLUPAIGALDISED

Small craft - Electrical systems - Alternating current installations (ISO 13297:2014)



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

	7:2014 co	his Estonian standard EVS-EN ISO 13297:2014 onsists of the English text of the European andard EN ISO 13297:2014.		
Standard on jõustunud sellekohase avaldamisega EVS Teatajas.	no	his standard has been endorsed with a otification published in the official bulletin of the stonian Centre for Standardisation.		
Euroopa standardimisorganisatsioonid oi Euroopa standardi rahvuslikele lii kättesaadavaks 10.12.2014.		Date of Availability of the European standard is 10.12.2014.		
Standard on kättesaadav Standardikeskusest.		he standard is available from the Estonian Centre or Standardisation.		

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

ICS 47.080

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Aru 10, 10317 Tallinn, Eesti; koduleht <u>www.eys.ee</u>; telefon 605 5050; e-post <u>info@eys.ee</u>

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Aru 10, 10317 Tallinn, Estonia; homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 13297

December 2014

ICS 47.080

Supersedes EN ISO 13297:2012

English Version

Small craft - Electrical systems - Alternating current installations (ISO 13297:2014)

Petits navires - Systèmes électriques - Installations à courant alternatif (ISO 13297:2014)

Kleine Wasserfahrzeuge - Elektrische Systeme - Wechselstromanlagen (ISO 13297:2014)

This European Standard was approved by CEN on 13 September 2014.

CEN 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Foreword

This document (EN ISO 13297:2014) has been prepared by Technical Committee ISO/TC 188 "Small craft".

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 June 2015, and conflicting national standards shall be withdrawn at the latest by June 2015.

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

This document supersedes EN ISO 13297:2012.

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.

For relationship with EU Directive, 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 13297:2014 has been approved by CEN as EN ISO 13297:2014 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 94/25/EC as amended by Directive 2003/44/EC

This European standard has been prepared under a mandate given to CEN by the European Commission to provide one means of conforming to Essential Requirements of the New Approach Directive 94/25/EC as amended by Directive 2003/44/EC.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one member state, 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 relevant Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 - Correspondence between this European Standard and Directive 94/25/EC as amended by Directive 2003/44/EC

Clauses/sub-clauses Of this European Standard	Corresponding annexes/ Paragraphs of Directive 94/25/EC as amended 2003/44/EC	Comments
All clauses	Annex IA, Clause 5.3 Electrical systems	The scope of this standard is limited to the design, construction and installation of low-voltage alternating current electrical systems which operate at nominal voltages of less than 250 V single phase
Clause 11.12	Annex IA, Clause 5.6.1 Fire protection	In respect of avoiding wiring above hot areas of machines
Annex B	Annex IA, Clause 2.5 Owner's manual	

WARNING: Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

Terms and definitions General requirements Marking Ignition sources Overcurrent protection 7.1 General 7.2 Supply circuits 7.3 Branch circuits Ground-fault protection/earth-leakage protection Appliances and equipment Conductor and cable installation Panel boards (switchboards) Socket outlets Power source options Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Typical a.c. system diagrams	Cor	ntents	Page
2 Normative references 3 Terms and definitions 4 General requirements 5 Marking 6 Ignition sources 7 Overcurrent protection 7.1 General 7.2 Supply circuits 7.3 Branch circuits 8 Ground-fault protection/earth-leakage protection 9 Appliances and equipment 10 System wiring 11 Conductor and cable installation 12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests	Fore	eword	iv
Terms and definitions General requirements Marking Ignition sources Overcurrent protection 7.1 General 7.2 Supply circuits 7.3 Branch circuits Ground-fault protection/earth-leakage protection Appliances and equipment System wiring Conductor and cable installation Panel boards (switchboards) Socket outlets Power source options Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Typical a.c. system diagrams	1	Scope	1
4 General requirements 5 Marking 6 Ignition sources 7 Overcurrent protection 7.1 General 7.2 Supply circuits 7.3 Branch circuits 8 Ground-fault protection/earth-leakage protection 9 Appliances and equipment 10 System wiring 11 Conductor and cable installation 12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	2	Normative references	1
5 Marking 6 Ignition sources 7 Overcurrent protection 7.1 General 7.2 Supply circuits 7.3 Branch circuits 8 Ground-fault protection/earth-leakage protection 9 Appliances and equipment 10 System wiring 11 Conductor and cable installation 12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	3	Terms and definitions	1
6 Ignition sources 7 Overcurrent protection 7.1 General 7.2 Supply circuits 7.3 Branch circuits 8 Ground-fault protection/earth-leakage protection 9 Appliances and equipment 10 System wiring 11 Conductor and cable installation 12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	4	General requirements	4
7 Overcurrent protection 7.1 General 7.2 Supply circuits 7.3 Branch circuits 8 Ground-fault protection/earth-leakage protection 9 Appliances and equipment 10 System wiring 11 Conductor and cable installation 12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	5	Marking	6
7.1 General 7.2 Supply circuits 7.3 Branch circuits 8 Ground-fault protection/earth-leakage protection 9 Appliances and equipment 10 System wiring 11 Conductor and cable installation 12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	6	Ignition sources	7
9 Appliances and equipment 10 System wiring 11 Conductor and cable installation 12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	7	7.1 General 7.2 Supply circuits	
10 System wiring 11 Conductor and cable installation 12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	8	Ground-fault protection/earth-leakage protection	8
11 Conductor and cable installation 12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	9		
12 Panel boards (switchboards) 13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	10	System wiring	9
13 Socket outlets 14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	11		
14 Power source options 15 Inverters and inverter/chargers Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	12		
Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	13		
Annex A (normative) Conductor requirements Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams	14		
Annex B (normative) Instructions to be included with owner's manual Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams			
Annex C (informative) Recommended system tests Annex D (informative) Typical a.c. system diagrams			
Annex D (informative) Typical a.c. system diagrams			
Bibliography			