

Irish Standard I.S. EN 50397-3:2010

Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV a.c. and not exceeding 36 kV a.c. -- Part 3: Guide to use

© NSAI 2010

No copying without NSAI permission except as permitted by copyright law.

I.S. EN 50397-3:2010

Incorporating amendments/corrigenda issued since publication:	

This document replaces:

This document is based on: EN 50397-3:2010 Published: 26 February, 2010

This document was published under the authority of the NSAI and comes into effect on:

10 March, 2010

ICS number: 29.240.20

NSAI 1 Swift Square, Northwood, Santry Dublin 9 T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie

W NSAl.ie

Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

I.S. EN 50397-3:2010

EUROPEAN STANDARD

EN 50397-3

NORME EUROPÉENNE EUROPÄISCHE NORM

February 2010

ICS 29.240.20

English version

Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV a.c. and not exceeding 36 kV a.c. - Part 3: Guide to use

Conducteurs gainés pour lignes aériennes et accessoires associés pour des tensions assignées supérieures à 1 kV c.a. et ne dépassant pas 36 kV c.a. - Partie 3: Guide d'emploi

Kunststoffumhüllte Leiter und zugehörige Armaturen für Freileitungen mit Nennspannungen über 1 kV und nicht mehr als 36 kV Wechselspannung -Teil 3: Leitfaden für die Verwendung

This European Standard was approved by CENELEC on 2010-02-01. 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, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

© 2010 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

.

- 2 -

Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 20, Electric cables. It was submitted to the formal vote and was approved by CENELEC as EN 50397-3 on 2010-02-01.

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

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

(dop) 2011-02-01

latest date by which the national standards conflicting with the EN have to be withdrawn

(dow) 2013-02-01

Contents

Int	roduc	tion	5
1	Sco	pe	5
2	Norr	mative references	5
3	Tern	ns and definitions	6
4			
	4.1	Recommendations for selection of covered conductors	6
	4.2	Recommendation for storage and transport	7
	4.3	Recommendation for installation of covered conductors	
	4.4	Other recommendations	13
5	Acc	essories	14
	5.1	General	14
	5.2	Joints	14
	5.3	Insulators	14
	5.4	Fittings	14
	5.5	Earthing devices	17
	5.6	Arc protection devices	17
	5.7	Surge arresters	19
	5.8	Bird protection	19
	5.9	Corona protection	19
Bil	oliogra	aphy	20

I.S. EN 50397-3:2010

EN 50397-3:2010

- 4 -

Figures

Figure 1 – View from the top	8
Figure 2 - Keep the drum standing upright, using wedges in the heels of the flanges	8
Figure 3 - Only drums with protection lagging may be piled flange on flange. Lower layer to be secured over full drum width	9
Figure 4 - Not recommended	9
Figure 5 - Drums may be lifted either by crane or fork-lift truck	9
Figure 6 - Rolling the drums	10
Figure 7 - Recommended direction	10
Figure 8 - Not recommended direction	10
Figure 9 - Unwind this way	12
Figure 10 - Never unwind this way	12
Figure 11 - Example of a joint	14
Figure 12 - Example of a tie	15
Figure 13 - Example of a bolted tension clamp	15
Figure 14 - Example of a helical fitting	16
Figure 15 - Example of a wedge type tension clamp	16
Figure 16 - Example of a tee off connection	17
Figure 17 - Example for an earthing device	17
Figure 18 - Arc phase to phase	17
Figure 19 - Arc phase to cross arm	18
Figure 20 - Example of two types of arc protection devices	18
Figure 21 - Example of arc protection device for angle constructions	19
Figure 22 - Example of arc protection device combined with surge arrester	19

Introduction

EN 50397 "Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV a.c. and not exceeding 36 kV a.c." is in three parts. These are:

Part 1: Covered conductors;

Part 2: Accessories for covered conductors - Tests and acceptance criteria;

Part 3: Guide to use.

This Part 3 "Guide to use" assumes that the user will benefit from a single document that gives guidance on all the equipment specified within the other two parts.

1 Scope

This part of EN 50397 provides general recommendations for the selection, storage, transportation and installation of the covered conductors and the related accessories specified in Parts 1 and 2 of the standard, unless otherwise specified. Safety regulations and environmental regulations as well as rules for installation and mechanical design are not considered in this Guide to use, as they are covered by relevant national regulations and laws. Relevant national regulations are not considered in this guide, but shall always be consulted as appropriate.

NOTE The term "national regulations" is used throughout this guide. It may include specific safety regulations, rules of installation and other relevant instructions which, depending upon the particular country or district, may exist in a legislative (mandatory) form, or as a non-mandatory code of practice. In addition certain specific utilities may have their own safety practices.

It is assumed that the design of installations, the purchase and installation of covered conductors and of the related accessories specified in this EN is entrusted to suitably skilled and competent people. In case of doubt as to the suitability of covered conductors and the related accessories for a particular use, further specific information shall be obtained from the manufacturer.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 50397-1:2006, Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV a.c. and not exceeding 36 kV a.c. - Part 1: Covered conductors

EN 50397-2, Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV a.c. and not exceeding 36 kV a.c. - Part 2: Accessories for covered conductors - Tests and Acceptance criteria

EN 50182:2001, Conductors for overhead lines - Round wire concentric lay stranded conductors



Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation