Irish Standard
I.S. EN 50397-2:2009

Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV AC and not exceeding 36 kV AC -- Part 2: Accessories for covered conductors - Tests and acceptance criteria

I.S. EN 50397-2:2009

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EUROPEAN STANDARD

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English version

Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV AC and not exceeding 36 kV AC - Part 2: Accessories for covered conductors - Tests and acceptance criteria

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 2: Accessoires pour conducteurs gainés - Exigences et essais

Kunststoffumhüllte Leiter und zugehörige Armaturen für Freileitungen mit Nennspannungen über 1 kV und nicht mehr als 36 kV Wechselspannung - Teil 2: Armaturen für kunststoffumhüllte Freileitungsseile - Prüfungen und Anforderungen

This European Standard was approved by CENELEC on 2009-04-22. 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, 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

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 20, Electric cables.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50397-2 on 2009-04-22.

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)	2010-05-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2012-05-01

EN 50397 consists of two parts: Part 1 "Covered Conductors" and Part 2 "Accessories". It covers the construction, performance and test acceptance criteria for covered conductors for overhead lines having a nominal voltage above 1 kV a.c. up to and including 36 kV a.c., and for the related accessories.

This European Standard EN 50397-2 covers the accessories.

NOTE It has been assumed in the preparation of this document that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

WARNING This European Standard calls for the use of substances and/or procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

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Introduction

Covered conductors consist of a conductor surrounded by a covering made of insulating material as protection against accidental contacts with other covered conductors and with grounded parts such as tree branches, etc. In comparison with insulated conductors, this covering has reduced properties, but is able to withstand the phase-to-earth voltage temporarily.

Since covered conductors are unscreened, they are not touch-proof, i.e. they must be treated as bare conductors with respect to electric shock.

EN 50397-2 does not cover aspects related to the installation of overhead lines such as determination of clearances, spans, sags, etc.

1 Scope

This Part 2 of EN 50397 contains the requirements for accessories that are for use with the covered conductors in accordance with EN 50397-1. They are for applications in overhead lines with rated voltages *U* above 1 kV a.c. and not exceeding 36 kV a.c.

NOTE This European Standard describes the requirements and tests only for the accessories installed on the covered conductor itself.

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 50483-5	*Test requirements for low voltage aerial bundled cable accessories - Part 5: Electrical ageing test*
EN 50483-6:2009	*Test requirements for low voltage aerial bundled cable accessories - Part 6: Environmental testing*
EN 61284:1997	*Overhead lines - Requirements and tests for fittings* (IEC 61284:1997)
EN 61467	*Insulators for overhead lines - Insulator strings and sets for lines with a nominal voltage greater than 1 000 V - AC power arc tests* (IEC 61467)
EN ISO 1461	*Hot dip galvanized coatings on fabricated iron and steel articles - Specifications and test methods* (ISO 1461)
IEC 60050-461	*International Electrotechnical Vocabulary (IEV) - Part 461: Electric cables*
ISO 2859-1	*Sampling procedures for inspection by attributes - Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*
ISO 2859-2	*Sampling procedures for inspection by attributes - Part 2: Sampling plans indexed by limiting quality (LQ) for isolated lot inspection*
ISO 3951 series	*Sampling procedures for inspection by variables*

3 Terms and definitions

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

3.1
type tests (symbol T)
tests required to be made before supplying a type of product covered by this EN on a general commercial basis in order to demonstrate satisfactory performance characteristics to meet the intended application

NOTE These tests are of such nature that, after they have been made, they need not be repeated unless changes are made in the material, design or manufacturing process, which might change the performance characteristics.

3.2
sample tests (symbol S)
tests made on samples of completed product or components taken from the completed product adequate to verify, that the finished product meets the design specifications