



NSAI
Standards

Irish Standard
I.S. EN 6059-502:2014

Aerospace series - Electrical cables,
installation - Protection sleeves - Test
methods - Part 502: Resistance to electrical
arcs

I.S. EN 6059-502:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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This document is based on:

EN 6059-502:2014

Published:

2014-12-10

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

2014-12-27

ICS number:

49.060

NOTE: If blank see CEN/CENELEC cover page

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EUROPEAN STANDARD

EN 6059-502

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2014

ICS 49.060

Supersedes EN 6059-502:2009

English Version

Aerospace series - Electrical cables, installation - Protection sleeves - Test methods - Part 502: Resistance to electrical arcs

Série aérospatiale - Câbles électriques, installation - Gainses de protection - Méthodes d'essais - Partie 502: Résistance aux arcs électriques

Luft- und Raumfahrt - Elektrische Leitungen, Installation - Schutzschläuche - Prüfverfahren - Teil 502: Lichtbogenfestigkeit

This European Standard was approved by CEN on 28 June 2014.

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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.

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Foreword

This document (EN 6059-502:2014) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

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of an identical text or by endorsement, at the latest by June 2015, and conflicting national standards shall be withdrawn at the latest by June 2015.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 6059-502:2009.

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EN 6059-502:2014 (E)

1 Scope

This European Standard specifies a method of assessing the behaviour of protection sleeves or conduits subject to an external electric arc, either at 115 Vac or 230 Vac 400 Hz.

This Standard shall be used together with EN 6059-100.

The primary aim of this test is to produce, in a controlled fashion, electric arcs at the immediate vicinity of a protection sleeve or conduit and to examine possible consequences on cables inside this protection, which are supposed to be maintained in a safe condition. These electric arcs are representative of those, which may occur in service when a typical cable bundle is severely damaged.

In order to optimize thickness and mass of such protection, it is necessary to associate a current limit I_n to each sleeves or conduits construction.

Two levels of prospective fault current are specified for all protection sizes.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2267-010, *Aerospace series — Cables, electrical, for general purpose — Operating temperatures between – 55 °C and 260 °C — Part 010: DR family, single UV laser printable — Product standard*

EN 2350, *Aerospace series — Circuit breakers — Technical specification*

EN 3475-302, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 302: Voltage proof test*

EN 6059-100, *Aerospace series — Electrical cables, installation — Protection sleeves — Test methods — Part 100: General*

EN 6059-501, *Aerospace series — Electrical cables, installation — Protection sleeves — Test methods — Part 501: Voltage proof test*

A-A-52083, *Specification for tape lacing and tying* ¹⁾

3 Specimen requirements

Protection sleeves or conduits to be tested shall be of traceable origin and, unless otherwise specified, shall have passed the voltage proof test (EN 6059-501) as defined in the concerned product standard.

Unless otherwise specified in the concerned technical product standard, at least one size of protection sleeve per sleeve thickness or construction type (if different from one size to another) shall be assessed.

If possible for each thickness or construction type the test must be performed on a sample having the minimum authorized thickness or minimum authorized mass.

1) Published by: Customer Service, Defense Printing Service Detachment Office, 700 Robbins Ave, Building 4D, Philadelphia PA 19111-5094 USA.

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