

Irish Standard I.S. EN 6059-406:2014

Aerospace series - Electrical cables, installation - Protection sleeves - Test methods - Part 406: Vibration

© CEN 2014 No copying without NSAI permission except as permitted by copyright law.

I.S. EN 6059-406:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

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

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on: EN 6059-406:2014

Published: 2014-04-30

This document was published		ICS number:		
and comes into effect on:		49.060		
2014-05-10				
		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 standa	ards@nsai.ie F +353 1 857 6729		
Dublin 9	W NSAI.i	ie W standards.ie		
Údarás um Chaighdeáin Náisiúnta na hÉireann				

EUROPEAN STANDARD

EN 6059-406

NORME EUROPÉENNE EUROPÄISCHE NORM

HE NORM

April 2014

ICS 49.060

English Version

Aerospace series - Electrical cables, installation - Protection sleeves - Test methods - Part 406: Vibration

Série aérospatiale - Câbles électriques, installation - Gaines de protection - Méthodes d'essais - Partie 406: Vibrations

Luft- und Raumfahrt - Elektrische Leitungen, Installation -Schutzschläuche - Prüfverfahren - Teil 406: Vibration

This European Standard was approved by CEN on 27 December 2013.

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

Ref. No. EN 6059-406:2014 E

This is a free page sample. Access the full version online. $I.S.\ EN\ 6059-406:2014$

EN 6059-406:2014 (E)

Contents

Page

Forev	vord	3
1	Scope	4
2	Normative references	4
3	Preparation of specimens	4
4 4.1	Apparatus General	5 5
4.2 4.3 4 4	Test set-up 01 Test set-up 02 Test set-up 03	6 7 8
5 5.1 5.2	Test methods General Test method A	9 9 9
5.3 5.4	Test method B Test method C	9 9
6 6.1 6.2 6.3	Requirements	0 0 0 0

Foreword

This document (EN 6059-406:2014) 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 October 2014, and conflicting national standards shall be withdrawn at the latest by October 2014.

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.

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.

1 Scope

This European Standard specifies the method and means required for testing the vibration resistance of protection sleeve for electrical cable and cable bundles for aerospace application.

It shall be used together with EN 6059-100.

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 2266-004, Aerospace series — Cables, electrical, for general purpose — Operating temperatures between – 55 °C and 200 °C — Part 004: CO2 laser printable — Product standard ¹)

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 3838, Aerospace series — Requirements and tests on user-applied markings on aircraft electrical cables

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

ISO 7137, Aircraft — Environmental conditions and test procedures for airborne equipment

AS 23190²⁾, Straps, clamps, and mounting hardware, plastic and metal for cable harness tying and support

MS 21919E, Clamp, loop type, cushioned, support 3)

MIL-DTL-85052B, Detail specification clamp, loop, cushion, general specification for ³)

3 Preparation of specimens

The electrical cables used for this test shall comply with standard EN 2266-004B, or EN 2267-010, or aerospace cables according to EN 3838 approved for-the application, with 24 AWG to 18 AWG.

The cables shall be installed uniformly inside the sleeve to be tested.

Unless otherwise specified in the product standard the test sample shall be manufactured using:

- EN 2267-010 size 006 (20 AWG) single core cable,

- metal cushion cable clamps to AS 23190, MS 21919E or MIL-DTL-85052B,
- the bundle diameter shall be within 75 % to 85 % of the sleeves maximum inner diameter.

¹⁾ Published as ASD-STAN Prestandard at the date of publication of this standard. <u>http://www.asd-stan.org/</u>

²⁾ Published by: SAE National (US) Society of Automotive Engineers. <u>http://www.sae.org/</u>

³⁾ Published by: DoD National (US) Mil. Department of Defense. <u>http://www.defenselink.mil/</u>



This is a free preview. Purchase the entire publication at the link below:

Product Page

S Looking for additional Standards? Visit Intertek Inform Infostore

> Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation