

# SVENSK STANDARD

## SS-EN 6059-309:2018

Fastställt/Approved: 2018-08-29  
Utgåva/Edition: 1  
Språk/Language: engelska/English  
ICS: 13.220.40;49.020;49.060

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### **Flyg- och rymdteknik – Elkablar för installation – Skyddsmantlar – Provningsmetoder – Del 309: Brandbeständighet vid montering på kabelknippe**

### **Aerospace series – Electrical cables, installation – Protection sleeves – Test methods – Part 309: Fire resistance when fitted on a cable bundle**

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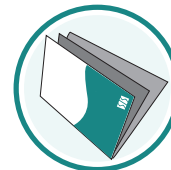
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The European Standard EN 6059-309:2018 has the status of a Swedish Standard. This document contains the official version of EN 6059-309:2018.

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EUROPEAN STANDARD

EN 6059-309

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2018

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ICS 13.220.40; 49.060

English Version

**Aerospace series - Electrical cables, installation -  
Protection sleeves - Test methods - Part 309: Fire  
resistance when fitted on a cable bundle**

Série aérospatiale - Câbles électriques, installation -  
Gaines de protection - Méthodes d'essais - Partie 309 :  
Résistance au feu une fois installée sur un toron des  
câbles

Luft- und Raumfahrt - Elektrische Leitungen,  
Installation - Schutzschläuche - Prüfverfahren - Teil  
309: Feuerbeständigkeit wenn um Kabelbündel  
installiert

This European Standard was approved by CEN on 6 November 2017.

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.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**SS-EN 6059-309:2018 (E)**

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## **European foreword**

This document (EN 6059-309:2018) 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 February 2019, and conflicting national standards shall be withdrawn at the latest by February 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

## SS-EN 6059-309:2018 (E)

### 1 Scope

This European Standard specifies a method of testing the fire resistance of wire harnesses protected with fire resistant sleeve for aerospace application.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 3909, *Aerospace series — Test fluids and test methods for electrical and optical components and sub-assemblies*

ISO 2685:1998, *Aircraft — Environmental test procedure for airborne equipment — Resistance to fire in designated fire zones*

### 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 4 Specimen composition

Standard cable = Type of non-fire proof/resistant cables, shall be in accordance with the product standard.

Fire resistant electrical harness built with non-fire resistant wires protected by a fire resistant external envelope.

#### Standard bundle:

- A. Bundle Figure 1 shall be made at least with twisted pairs AWG24 and jacketed shielded twisted pairs AWG24 standard cables. The bundle diameter shall be less than or equal to 10 mm. Bundle shall be twisted with a maximum twisting pitch of twice diameter of the burner. The fireproof external envelope shall be installed in accordance with the installation specification.

#### Other bundles if requested:

- B. Bundle shall be made at least with twisted pairs AWG24 and shielded twisted pairs AWG24 standard cables in external position of the bundle. The bundle diameter shall be greater than or equal to 20 mm. The fireproof external envelope shall be installed in accordance with its installation specification.
- C. Bundle with specific cables or specific composition. Specific cables shall face the burner. Bundle shall be twisted with a minimum twisting pitch of 300 mm or twice the bundle diameter. The fireproof external envelope shall be installed in accordance with its installation specification.
- D. Bundle with shield. The fireproof external envelope shall be installed in accordance with its installation specification.