

### SLOVENSKI STANDARD SIST EN 2349-412:2009

01-maj-2009

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Aerospace series - Requirements and test procedures for relays and contactors - Part 412: Seal

Luft- und Raumfahrt - Anforderungen und Prüfverfahren für Relais und Schaltschütze - Teil 412: Stirnflächendichtheit STANDARD PREVIEW

Série aérospatiale - Exigences et méthodes d'essais des relais et contacteurs - Partie 412 : Étanchéité

SIST EN 2349-412:2009 https://standards.iteh.ai/catalog/standards/sist/fc81d7b1-d74d-447f-b91d-

Ta slovenski standard je istoveten z: EN 2349-412-2009

ICS:

49.060 Š^œ∳\æÁş Áç^•[ | b \æ Aerospace electric

^|^\dã} ad | '^{ ad Aã c'} ã equipment and systems

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EUROPEAN STANDARD

EN 2349-412

NORME EUROPÉENNE EUROPÄISCHE NORM

April 2007

ICS 49.060

#### **English Version**

### Aerospace series - Requirements and test procedures for relays and contactors - Part 412: Seal

Série aérospatiale - Exigences et méthodes d'essais des relais et contacteurs - Partie 412 : Étanchéité

Luft- und Raumfahrt - Anforderungen und Prüfverfahren für Relais und Schaltschütze - Teil 412: Stirnflächendichtheit

This European Standard was approved by CEN on 19 May 2006.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Iteland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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#### EN 2349-412:2007 (E)

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EN 2349-412:2007 (E)

#### **Foreword**

This document (EN 2349-412:2007) has been prepared by the AeroSpace and Defense 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 2007, and conflicting national standards shall be withdrawn at the latest by October 2007.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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#### EN 2349-412:2007 (E)

#### 1 Scope

This standard specifies a method for checking the leakage rate of relays and contactors. It shall be used together with EN 2349-100.

#### 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 2349-100, Aerospace series — Requirements and test procedures for relays and contactors — Part 100: General requirements <sup>1)</sup>

EN 2349-201, Aerospace series — Requirements and test procedures for relays and contactors — Part 201: Visual inspection

IEC 60068-2-17, Basic environmental testing procedures — Part 2: Tests — Test Q: Sealing

#### 3 Method

### 3.1 Mounting iTeh STANDARD PREVIEW

For relays or contactors with plug-socket holders, only the switching device shall be tested.

#### 3.2 Procedure

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The relay or contactor shall be subjected to a seal test in accordance with IEC 60068-2-17.

#### 4 Requirements

#### 4.1 Gas-tightness

Relays or contactors with a sealed volume of more than 30 cm $^3$  shall show a leakage rate, at a pressure differential of 100 kPa (1 bar), of at most  $1 \times 10^{-6}$  cm $^3$  / s per 15 cm $^3$  hermetically sealed volume.

Relays or contactors with a sealed volume of less than 30 cm $^3$  shall show a leakage rate of at most  $1 \times 10^{-8}$  cm $^3$  / s in accordance with Test Q of IEC 60068-2-17.

#### 4.2 Liquid-tightness

10 s after immersion no visible bubbles shall escape, in accordance with Test Q of IEC 60068-2-17.

#### 4.3 Inspection

Test in accordance with EN 2349-201. No signs of leakage or bubbles.

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<sup>1)</sup> In preparation at the date of publication of this standard.