SLOVENSKI STANDARD
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Aeronavtika - Zahteve in preskusni postopki za releje in kontaktorje - 414. del: Mehanski udarci

Aerospace series - Requirements and test procedures for relays and contactors - Part 414: Mechanical shock

Luft- und Raumfahrt - Anforderungen und Prüfverfahren für Relais und Schaltschütze - Teil 414: Mechanische Stöße

Série aérospatiale - Exigences et méthodes d'essais des relais et contacteurs - Partie 414 : Chocs mechanique

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Foreword

This document (EN 2349-414:2007) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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of an identical text or by endorsement, at the latest by October 2007, and conflicting national standards shall be withdrawn at the latest by October 2007.

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1 Scope

This standard specifies a method for checking the capability of relays and contactors to withstand shock. 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* [1)]

EN 2349-301, *Aerospace series — Requirements and test procedures for relays and contactors — Part 301: Pick-up and drop-out voltage*

EN 2349-303, *Aerospace series — Requirements and test procedures for relays and contactors — Part 303: Dielectric strength*

EN 2349-304, *Aerospace series — Requirements and test procedures for relays and contactors — Part 304: Operate and release time*

EN 2349-305, *Aerospace series — Requirements and test procedures for relays and contactors — Part 305: Bounce time*

EN 2349-307, *Aerospace series — Requirements and test procedures for relays and contactors — Part 307: Contact voltage drop*

EN 2349-309, *Aerospace series — Requirements and test procedures for relays and contactors — Part 309: Exported spikes*

EN 2349-412, *Aerospace series — Requirements and test procedures for relays and contactors — Part 412: Seal*

ISO 7137:1995, *Aircraft — Environmental conditions and test procedures for airborne equipment* [2)]

3 Method

3.1 Mounting

Mounting of the relay or contactor on the drop slide shall be rigid, so that the shock produced can be transmitted directly to the test sample without absorption or resonance.

The electrical connections shall be wired in accordance with the product standard. The wires shall be secured to the drop slide as close as possible to the point of electrical connection.

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1) In preparation at the date of publication of this standard.

2) Endorsement of publications EUROCAE/ED-14 and RTCA/DO-160.

3.2 Procedure

The relay or contactor shall be subjected to a shock test in accordance with ISO 7137.

For test conditions see product standard.

4 Requirements

The torque for the connections and attachments shall not be less than 80 % of the rated value.

No opening of closed contacts for longer than 10 µs.

No closing of open contacts for longer than 1 µs.

Test in accordance with EN 2349-301, EN 2349-303, EN 2349-304, EN 2349-305, EN 2349-307, EN 2349-309, and EN 2349-412.