



**SLOVENSKI STANDARD**  
**SIST EN 3841-507:2005**

**01-april-2005**

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**Aeronavtika - Odklopniki - Preskusne metode - 507. del: Mehanski udarci**

Aerospace series - Circuit breakers - Test methods - Part 507: Mechanical shocks

Luft- und Raumfahrt - Schutzschalter - Prüfverfahren - Teil 507: Mechanische Stöße

**iTeh STANDARD PREVIEW**

Série aérospatiale - Disjoncteurs - Méthodes d'essais - Partie 507 : Chocs mécaniques

**Ta slovenski standard je istoveten z: EN 3841-507:2004**

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**ICS:**

49.060 Štejni odklopniki in sistemski opremljeni z električnimi udarnimi mehanizmi  
Aerospace electric equipment and systems

**SIST EN 3841-507:2005**

**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 3841-507**

December 2004

ICS 49.060

English version

**Aerospace series - Circuit breakers - Test methods - Part 507:  
Mechanical shocks**

Série aérospatiale - Disjoncteurs - Méthodes d'essais -  
Partie 507 : Chocs mécaniques

Luft- und Raumfahrt - Schutzschalter - Prüfverfahren - Teil  
507: Mechanische Stöße

This European Standard was approved by CEN on 10 September 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

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<b>Contents</b>		<b>Page</b>
<b>Foreword</b> .....		<b>3</b>
<b>1</b>	<b>Scope</b> .....	<b>4</b>
<b>2</b>	<b>Normative references</b> .....	<b>4</b>
<b>3</b>	<b>Method</b> .....	<b>4</b>
<b>3.1</b>	<b>Mounting</b> .....	<b>4</b>
<b>3.2</b>	<b>Procedure</b> .....	<b>4</b>
<b>4</b>	<b>Requirement</b> .....	<b>4</b>

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## Foreword

This document (EN 3841-507:2004) 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 June 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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EN 3841-507:2004 (E)

## 1 Scope

This standard specifies a method of verifying the ability of circuit breakers to withstand mechanical shocks.

It shall be used together with EN 3841-100.

## 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.

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

EN 3841-100, *Aerospace series – Circuit breakers – Test methods – Part 100: General*

## 3 Method

### 3.1 Mounting

The circuit breakers shall be mounted on the shock table according to 4.2 and 4.3 of EN 3841-100. The means of mounting shall be designed so as to transmit the pulses without absorption or natural resonance.

The electrical connection shall be made with the cables of the sections specified in EN 3841-100, Table 1. The connection cables shall be attached to the shock table approximately 100 mm from the terminals. The circuit breakers and the cables shall be mounted with the torque indicated in the product standard.

### 3.2 Procedure

The circuit breakers shall be subjected to the mechanical shocks test according to ISO 7137, test procedure 2.1.

Three shocks shall be applied in each direction and for every switch setting:

- in the closed position at 90 % of current rating;
- in the open position.

The acceleration peak value (half sine-wave from of 11 ms duration) is specified in the technical specification.

During the test, it shall be established that the contacts do not close for a period  $\geq 10 \mu\text{s}$  (circuit breakers in the open position) or open for a period  $\geq 10 \mu\text{s}$  (circuit breakers in the closed position).

## 4 Requirement

Requirements in accordance with technical specification and product standard.