



SLOVENSKI STANDARD
SIST EN 2591-302:2001
01-januar-2001

Aerospace series - Elements of electrical and optical connection - Test methods - Part 302: Climatic sequence

Aerospace series - Elements of electrical and optical connection - Test methods - Part 302: Climatic sequence

Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 302: Klimafolge

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Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 302: Séquence climatique

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Ta slovenski standard je istoveten z: EN 2591-302:1997

ICS:

49.060 Štejni in optični elementi za povezavo električnih in optičnih sistemov v letalski in vesoljski tehniki
 Aerospace electric equipment and systems

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EUROPEAN STANDARD
 NORME EUROPÉENNE
 EUROPÄISCHE NORM

EN 2591-302

October 1997

ICS 49.060

Descriptors: aircraft industry, aircraft equipment, connecting equipment, test

English version

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 - Test methods - Part 302: Climatic sequence

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 optique - Méthodes d'essais - Partie 302: Séquence
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This European Standard was approved by CEN on 22 June 1997.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries 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.

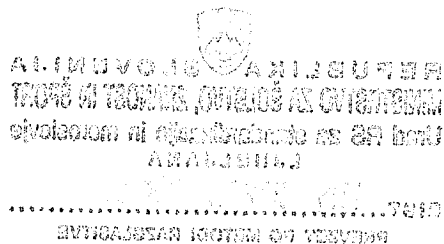
This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 1998, and conflicting national standards shall be withdrawn at the latest by April 1998.

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

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1 Scope

This standard specifies a (climatic sequence) method of assessing the ability of elements of connection to function in a specified environment.

It shall be used together with EN 2591.

2 References

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 2591	Aerospace series - Elements of electrical and optical connection - Test methods - General
EN 2591-101	Aerospace series - Elements of electrical and optical connection - Test methods - Part 101: Visual examination
EN 2591-201	Aerospace series - Elements of electrical and optical connection - Test methods - Part 201: Contact resistance - Low level
EN 2591-202	Aerospace series - Elements of electrical and optical connection - Test methods - Part 202: Contact resistance at rated current
EN 2591-206	Aerospace series - Elements of electrical and optical connection - Test methods - Part 206: Measurement of insulation resistance
EN 2591-207	Aerospace series - Elements of electrical and optical connection - Test methods - Part 207: Voltage proof test
EN 2591-309	Aerospace series - Elements of electrical and optical connection - Test methods - Part 309: Dry heat ¹⁾
EN 2591-310	Aerospace series - Elements of electrical and optical connection - Test methods - Part 310: Cold ¹⁾
EN 2591-311	Aerospace series - Elements of electrical and optical connection - Test methods - Part 311: Low air pressure ¹⁾
EN 2591-321	Aerospace series - Elements of electrical and optical connection - Test methods - Part 321: Damp heat, cyclic test ¹⁾
EN 2591-408	Aerospace series - Elements of electrical and optical connection - Test methods - Part 408: Mating and unmating forces ¹⁾

1) Published as AECMA Prestandard at the date of publication of this standard

3 Preparation of specimens

3.1 The specimens shall be prepared according to the technical specification.

3.2 Unless specified in the technical specification, the following details shall be stated:

- number of mating and unmating operations prior to testing (if applicable);
- specimens mated or unmated and fitted with a protective cover (if applicable);
- mounting method, type of cable and definition of specimen wiring;
- type of preconditioning;
- initial measurements (if applicable);
- minimum value of the insulation resistance at high temperature (if applicable);
- applicable low air pressure value and test voltage value;
- applicable contact resistance test;
- final measurements and requirements (if applicable).

4 Method

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4.1 Preconditioning

Preconditioning shall be as specified.

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4.2 Initial measurements (if applicable)

They shall be carried out as specified.

4.3 Procedure

The test shall be carried out in the following sequence (see figure 1).

4.3.1 Dry heat

In accordance with EN 2591-309

The specimens shall be exposed to the specified temperature (θ_1) for 16 h.

4.3.1.1 Intermediate measurement and requirement

Within the last hour of exposure (see figure 1) the insulation resistance (EN 2591-206) shall be measured; it shall not be less than the specified value.

4.3.1.2 Recovery

The specimens shall be allowed to recover to initial conditions.

4.3.2 Low air pressure

In accordance with EN 2591-311 for 30 min, unless otherwise specified

4.3.3 Damp heat, cyclic test

The specimens shall be tested to EN 2591-321 for one cycle immediately followed by the cold test without prior recovery.

4.3.4 Cold

In accordance with EN 2591-310

The specimens shall be exposed to the specified temperature (θ_2) for 24 h.

4.3.4.1 Intermediate measurement and requirement

The specimens shall then be visually inspected (EN 2591-101). They shall show no sign of deterioration which might adversely affect performance.

4.3.4.2 Recovery

The specimens shall be allowed to recover to initial conditions.

4.3.5 Low air pressure

In accordance with EN 2591-311 for 30 min, unless otherwise specified

4.3.6 Damp heat, cyclic test

The specimens shall be tested to EN 2591-321 for one cycle

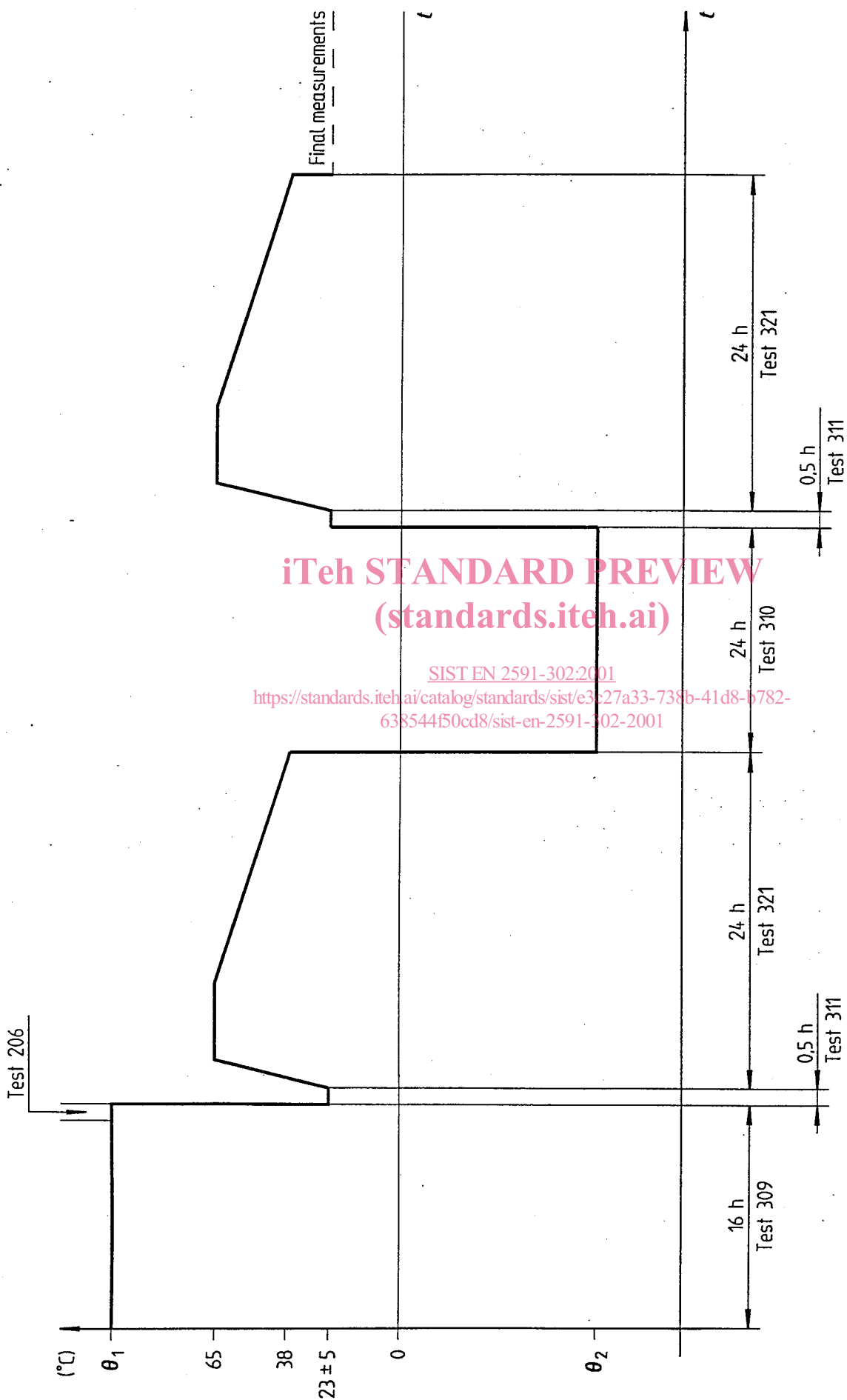
4.3.7 Recovery

The specimens shall be allowed to recover to initial conditions.

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NOTE: Recovery and transition times between two tests are not indicated.

Figure 1 – Test cycle