

**Aerospace series - Connectors,
electrical, circular, bayonet coupling,
operating temperature 175 °C or 200 °C
continuous - Part 001: Technical
specification**

Aerospace series - Connectors, electrical, circular,
bayonet coupling, operating temperature 175 °C or
200 °C continuous - Part 001: Technical
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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 3646-001:2007 sisaldab Euroopa standardi EN 3646-001:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 31.05.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 3646-001:2007 consists of the English text of the European standard EN 3646-001:2007.</p> <p>This document is endorsed on 31.05.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This standard specifies the general characteristics, the conditions for qualification, acceptance and quality assurance, as well as the test programmes and groups for bayonet coupling circular connectors, intended for use in an operating temperature range of – 65 °C to 175 °C or 200 °C continuous according to the class and models.</p>	<p>Scope: This standard specifies the general characteristics, the conditions for qualification, acceptance and quality assurance, as well as the test programmes and groups for bayonet coupling circular connectors, intended for use in an operating temperature range of – 65 °C to 175 °C or 200 °C continuous according to the class and models.</p>
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ICS 49.060

Võtmesõnad:

ICS 49.060

English Version

Aerospace series - Connectors, electrical, circular, bayonet
coupling, operating temperature 175 °C or 200 °C continuous -
Part 001: Technical specification

Série aérospatiale - Connecteurs électriques circulaires à
accouplement par baïonnettes, température d'utilisation
175 °C ou 200 °C continu - Partie 001 : Spécification
technique

Luft- und Raumfahrt - Elektrische Rundsteckverbinder mit
Bajonettkupplung, Betriebstemperatur 175 °C oder 200 °C
konstant - Teil 001: Technische Lieferbedingungen

This European Standard was approved by CEN on 5 June 2006.

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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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 3646-001:2007) 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 September 2007, and conflicting national standards shall be withdrawn at the latest by September 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.

0 Introduction

This family of connectors is derived from MIL-C-26482G, series 2, the NAS 1599 bayonet connector with which it is intermateable and which uses MIL-C-39029D for the contacts. It is particularly suitable for use on aircraft applying EN 2282.

These connectors are distinguishable from MIL-C-26482G and NAS 1599 by:

- being of a lower mass;
- having reduced dimensions;
- accepting smaller cables.

1 Scope

This standard specifies the general characteristics, the conditions for qualification, acceptance and quality assurance, as well as the test programmes and groups for bayonet coupling circular connectors, intended for use in an operating temperature range of $-65\text{ }^{\circ}\text{C}$ to $175\text{ }^{\circ}\text{C}$ or $200\text{ }^{\circ}\text{C}$ continuous according to the class and models.

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 263, *Inch screw threads — General plan and selection for screws, bolts and nuts — Diameter range 0,06 to 6 in*

ISO 4524-1, *Metallic coatings — Test methods for electrodeposited gold and gold alloy coatings — Part 1: Determination of coating thickness*

EN 2266-002, *Aerospace series — Cables, electrical, for general purpose — Operating temperatures between $-55\text{ }^{\circ}\text{C}$ and $200\text{ }^{\circ}\text{C}$ — Part 002: General*

EN 2282, *Aerospace series — Characteristics of aircraft electrical supplies*

EN 2591 (series), *Aerospace series — Elements of electrical and optical connection — Test methods*

EN 2591-100, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 100: General*

EN 3155-001, *Aerospace series — Electrical contacts used in elements of connection — Part 001: Technical specification*¹⁾

EN 3197, *Aerospace series — Installation of aircraft electrical and optical interconnection systems*

EN 3646-002, *Aerospace series — Connectors, electrical, circular, bayonet coupling, operating temperature $175\text{ }^{\circ}\text{C}$ or $200\text{ }^{\circ}\text{C}$ continuous — Part 002: Specification of performance and contact arrangements*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

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

AS 1241C, *Fire resistant phosphate ester hydraulic fluid for aircraft* ²⁾

MIL-A-8243D, *Anti-icing and deicing-defrosting fluids* ³⁾

MIL-C-25769J, *Cleaning compound, aircraft surface, alkaline water base fluids* ³⁾

MIL-C-26482G, *Connector, electrical, (circular, Miniature, quick disconnect, environment resisting), receptacles and plugs, general specification for* ³⁾

MIL-C-39029D, *Contacts, electrical connector, general specification for* ³⁾

MIL-HDBK-454, *General guidelines for electronic equipment* ³⁾

MIL-H-5606G, *Hydraulic fluid, petroleum base; aircraft; missile and ordnance* ³⁾

MIL-PRF-7808L, *Lubricating oil, aircraft turbine engine, synthetic base* ³⁾

MIL-PRF-7870C, *Lubricating oil; general purpose, low temperature* ³⁾

MIL-PRF-23699F, *Lubricating oil, aircraft turbine engine, synthetic base, NATO Code Number O-156* ³⁾

NAS 1599, *(Inactive) Connectors, general purpose, electrical, miniature circular, environment resisting, 200 °C maximum temperature* ⁴⁾

TR 4257, *Aerospace series — Elements of electrical and optical connection — Relationship between the numbering systems for parts of EN 2591* ⁵⁾

3 Definitions

See EN 2591-100.

4 Description

4.1 General

Different variants of materials, housings and contact arrangements are provided according to the models depending on the service conditions.

These connectors use crimp or solder contacts of sizes 20, 16 and 12.

The receptacles and plugs contain either male contacts or female contacts.

The contacts fitted in the model Y receptacles are exclusively of the male non removable solder type.

2) Published by: Society of Automotive Engineers, Inc. (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001, USA.

3) Published by: Department of Defense (DOD), the Pentagon, Washington, DC 20301, USA.

4) Published by: Aerospace Industries Association of America, Inc. (AIA), 1250 Eye Street, NW; Suite 1100, Washington, DC 20005, USA.

5) Published as AECMA Technical Report at the date of publication of this standard.