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Irish Standard
I.S. EN 3646-001:2015

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

**I.S. EN 3646-001:2015**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN 3646-001:2015 is the adopted Irish version of the European Document EN 3646-001:2015, Aerospace series - Connectors, electrical, circular, bayonet coupling, operating temperature 175 °C or 200 °C continuous - Part 001: Technical specification

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 3646-001

November 2015

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Supersedes EN 3646-001:2007

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 8 June 2015.



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

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# Contents

Page

## European foreword

This document (EN 3646-001:2015) has been prepared by the Aerospace and Defence 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of an identical text or by endorsement, at the latest by May 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 3646-001:2007.

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

# Introduction

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

These connectors are distinguishable from MIL-DTL-26482 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 °C to 175 °C or 200 °C continuous according to the class and models.

# 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2266-002, *Aerospace series — Cables, electrical, for general purpose — Operating temperatures between –55 °C and 200 °C — Part 002: General*

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

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*

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 °C or 200 °C continuous — Part 002: Specification of performance and contact arrangements*

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

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*

AS 39029, *Contacts, electrical connector, general specification for*[1)]

MIL-DTL-26482H, *Connector, electrical, (circular, Miniature, quick disconnect, environment resisting), receptacles and plugs, general specification for*[2)]

MIL-HDBK-454N, *General guidelines for electronic equipment*[2)]

NAS 1599, *(Inactive) Connectors, general purpose, electrical, miniature circular, environment resisting, 200 °C maximum temperature*[3)]

# 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 2591-100 apply.

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* And all parts quoted in this standard.

1) Published by: Society of Automotive Engineers, Inc. (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001, USA (http://www.sae.org/).

2) Published by: Department of Defense (DOD), the Pentagon, Washington, DC 20301, USA (http://www.defenselink.mil/).

3) Published by: Aerospace Industries Association of America, Inc. (AIA), 1250 Eye Street, NW; Suite 1100, Washington, DC 20005, USA (http://www.aia-aerospace.org).