



# SLOVENSKI STANDARD

## SIST EN 2665-004:2014

01-marec-2014

Nadomešča:

SIST EN 2665-004:2002

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**Aeronavtika - Odklopniki, tripolni, temperaturno kompenzirani, za naznačene tokove od 20 A do 50 A - 004. del: UNC-navojni priključki - Standard za izdelek**

Aerospace series - Circuit breakers, three-pole, temperature compensated, rated current 20 A to 50 A - Part 004: UNC thread terminals - Product standard

Luft- und Raumfahrt - Schutzschalter, dreipolig, temperaturkompensiert, Nennströme von 20 A bis 50 A - Teil 004: UNC-Klemmengewinde - Produktnorm

Série aéronautique - Disjoncteurs tripolaires compensés en température, intensités nominales 20 A à 50 A - Partie 004: Bornes à filetage UNC - Norme de produit

**Ta slovenski standard je istoveten z: EN 2665-004:2013**

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**ICS:**

49.060

Letalska in vesoljska  
električna oprema in sistemi

Aerospace electric  
equipment and systems

**SIST EN 2665-004:2014**

**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 2665-004**

December 2013

ICS 49.060

English Version

**Aerospace series - Circuit breakers, three-pole, temperature compensated, rated current 20 A to 50 A - Part 004: UNC thread terminals - Product standard**

Série aérospatiale - Disjoncteurs tripolaires compensés en température, intensités nominales 20 A à 50 A - Partie 004 : Bornes à filetage UNC - Norme de produit

Luft- und Raumfahrt - Schutzschalter, dreipolig, temperaturkompensiert, Nennströme von 20 A bis 50 A - Teil 004: UNC-Klemmengewinde - Produktnorm

This European Standard was approved by CEN on 28 September 2013.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Contents

Page

Foreword.....	3
1     Scope .....	4
2     Normative references .....	4
3     Terms and definitions .....	4
4     Dimensions and mass .....	4
5     Characteristics .....	6
6     Designation .....	11
7     Rated current code .....	11
8     Delivery codes.....	11
9     Marking .....	12
10    Technical specification .....	12

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[SIST EN 2665-004:2014](https://standards.iteh.ai/catalog/standards/sist/f29a70cb-61be-4a9a-a513-6848ad845296/sist-en-2665-004-2014)

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## Foreword

This document (EN 2665-004:2013) 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 June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

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 2665-004:1999.

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.

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## EN 2665-004:2013 (E)

## 1 Scope

This European Standard specifies the characteristics of three-pole circuit breakers, temperature compensated with a rated current from 20 A to 50 A, used in aircraft on-board circuits at a temperature between – 55 °C and 90 °C at an altitude of 15 000 m max.

These circuit breakers are operated by a push-pull type single pushbutton (actuator), with delayed action "trip-free" tripping

They will continue to function up to the short-circuit current.

## 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 2350, *Aerospace series — Circuit breakers — Technical specification*

EN 2665-001, *Aerospace series — Circuit breakers, three-pole, temperature compensated, rated currents 20 A to 50 A — Part 001: Technical specification*

EN 3841-305, *Aerospace series — Circuit breakers — Test methods — Part 305: Short-circuit performance*

EN 6113, *Aerospace series — Circuit breaker connecting and attachment hardware* <sup>1)</sup>

TR 6083, *Aerospace series — Cut-outs for installation of electrical components* <sup>2)</sup>

FED-STD-595B, *Colors used in Government Procurement* <sup>3)</sup>

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 2350 apply.

## 4 Dimensions and mass

### 4.1 Dimensional characteristics

The circuit breakers do not have to correspond to the pictorial illustration, only the dimensions given shall be adhered to.

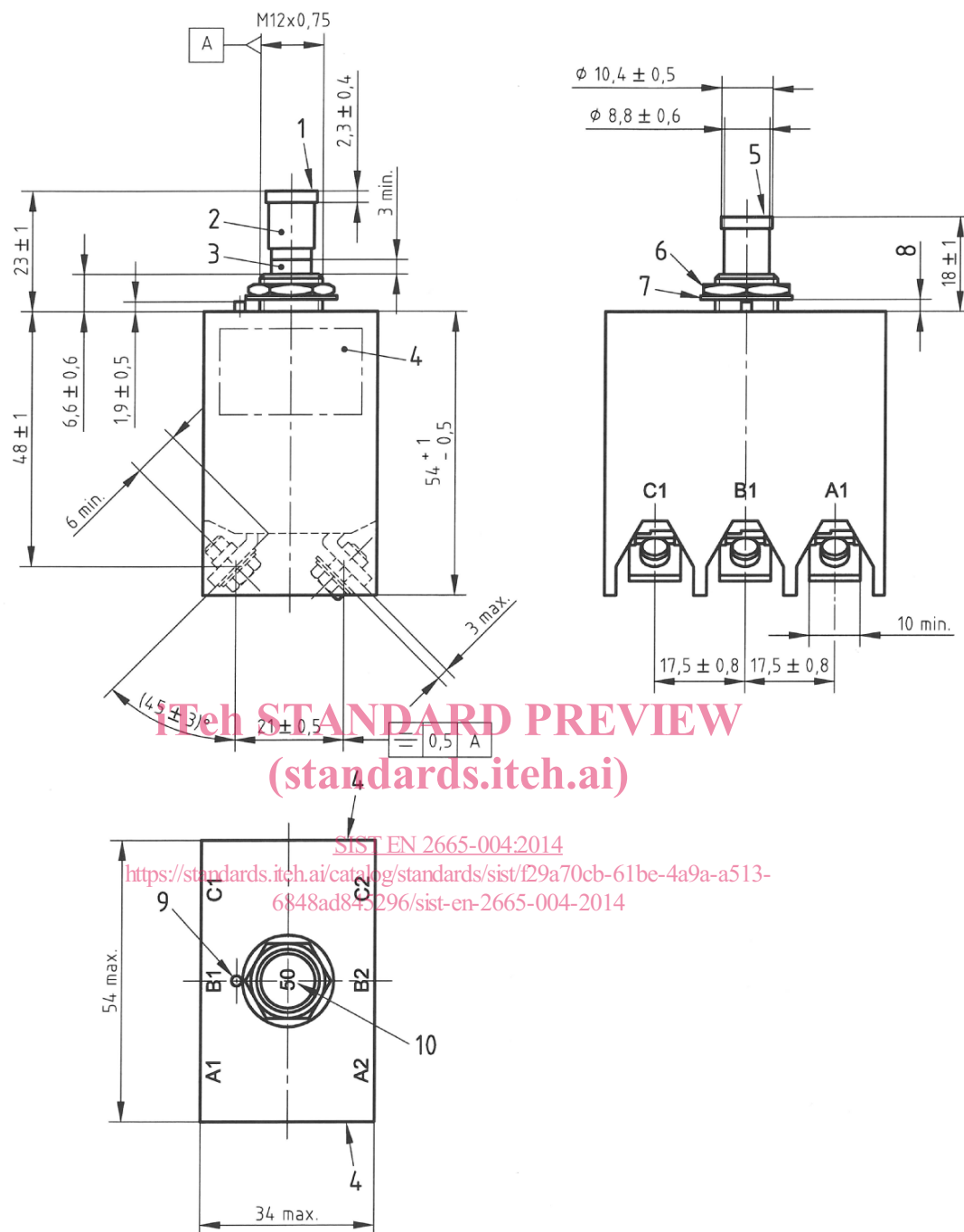
Dimensions are in millimetres with exception terminal thread 8-32 UNC.

See Figure 1.

1) Published as ASD-STAN Prestandard at the date of publication of this standard. <http://www.asd-stan.org/>

2) Published as ASD-STAN Technical Report at the date of publication of this standard. <http://www.asd-stan.org/>

3) Published by: DoD National (US) Mil. Department of Defense <http://www.defenselink.mil/>



### Key

- |  |  |
|--|--|
| 1 Push button released                   | 7 Lock washer  |
| 2 Black colour according to FED-STD-595B | 8 1,0 max. to 3,0 max.   |
| 3 White                                  | 9 Positioning lug in accordance with the panel cut-out, as per TR 6083C202 |
| 4 Marking, see Clause 6.                 | 10 Rated current marking (white on black)                                  |
| 5 Push button pressed                    |  |
| 6 Attachment nut                         |  |

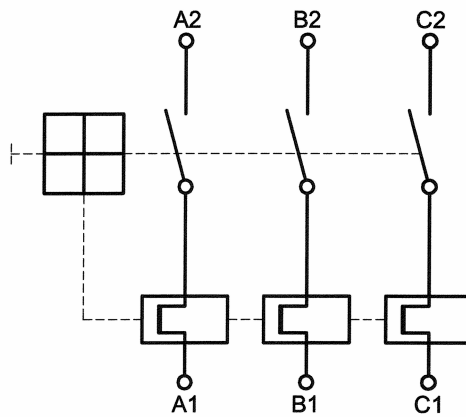
Figure 1 — Configuration – Dimensions – Tolerances

**EN 2665-004:2013 (E)****4.2 Electrical diagram**

See Figure 2.

Push button released: CB open.

Push button pressed: CB closed.

**Key**

- 1 Load
- 2 Supply

Load and supply can be inverted.

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**Figure 2 — Electrical diagram**

**4.3 Mass**

162 g max. (delivery code A including hardware).

**4.4 Panel mounting**

See EN 2665-001.

**5 Characteristics****5.1 Material, surface treatment**

See EN 2665-001.

**5.2 Mechanical characteristics****5.2.1 Fasteners**

See EN 6113.



**5.2.2 Recommended tightening torque of attaching nut for installation**

(5,25 ± 0,25) Nm

**5.2.3 Recommended tightening torque of connection hardware for installation**

(2,35 ± 0,15) Nm

**5.2.4 Resistance to vibrations****5.2.4.1 Combined test: ambient temperature at 70 °C and vibrations**

Sinusoidal : 10  $g_n$ , see EN 2665-001.

Random : 5,8  $g_n$ , see EN 2665-001.

Low frequencies : 10  $g_n$ , see EN 2665-001.

**5.2.4.2 Combined test: ambient temperature at 85 °C, altitude and vibrations**

Sinusoidal: 3  $g_n$ , see EN 2665-001.

**5.2.5 Resistance to shocks**

50  $g_n$ , see EN 2665-001.

**5.2.6 Mechanical endurance**

See Table 6.

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**5.3 Environment characteristics****5.3.1 Humidity**

See EN 2665-001.

**5.3.2 Corrosion**

See EN 2665-001.

**5.3.3 Contaminating liquids**

See EN 2665-001.

**5.3.4 Overvoltage caused by lightning**

See EN 2665-001.