

SLOVENSKI STANDARD
oSIST prEN 2996-006:2021
01-september-2021

Aeronavtika - Odklopniki, tripolni, temperaturno kompenzirani, za naznačene tokove od 1 A do 25 A - 006. del: Ploski spoji 6,3 & 2,8 mm - S polariziranim signalnim kontaktom - Standard za proizvod

Aerospace series - Circuit breakers, three-poles, temperature compensated, rated currents 1 A to 25 A - Part 006: 6,3 & 2,8 mm blade terminal - With polarized signal contact - Product standard

Luft- und Raumfahrt - Schutzschalter, dreipolig, temperaturkompensiert, Nennströme von 1 A bis 25 A Teil 006: Flachsteckverbinder 6,3 & 2,8 mm - Mit polarisiertem - Signalkontakt Produktnorm

Série aérospatiale - Disjoncteurs tripolaires compensés en température, intensités nominales 1 A à 25 A - Partie 06 : Raccordement par lame 6,3 & 2,8 mm - Avec contact auxiliaires polarisés - Norme de produit

Ta slovenski standard je istoveten z: prEN 2996-006

ICS:

29.120.50	Varovalke in druga nadtokovna zaščita	Fuses and other overcurrent protection devices
49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems

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en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 2996-006

July 2021

ICS 49.060

English Version

**Aerospace series - Circuit breakers, three-poles,
temperature compensated, rated currents 1 A to 25 A -
Part 006: 6,3 & 2,8 mm blade terminal - With polarized
signal contact - Product standard**

Série aérospatiale - Disjoncteurs tripolaires compensés
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Luft- und Raumfahrt - Schutzschalter, dreipolig,
temperaturkompensiert, Nennströme von 1 A bis 25 A
Teil 006: Flachsteckverbinder 6,3 & 2,8 mm - Mit
polarisiertem - Signalkontakt Produktnorm

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

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If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 2996-006:2021) 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 document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document is currently submitted to the CEN Enquiry.

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prEN 2996-006:2021 (E)**1 Scope**

This document specifies the characteristics of three-pole circuit breakers, temperature compensated with a rated current from 1 A to 25 A, used in aircraft on-board circuits at a temperature between $-55\text{ }^{\circ}\text{C}$ and $125\text{ }^{\circ}\text{C}$ for ratings $\leq 15\text{ A}$ and $-55\text{ }^{\circ}\text{C}$ to $90\text{ }^{\circ}\text{C}$ for ratings $> 15\text{ A}$ and 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 are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 3774-001, *Aerospace series — Circuit breakers, three-pole, temperature compensated, rated currents 1 A to 25 A — Part 001: Technical specification*

EN 3841-305, *Aerospace series — Circuit breakers — Test methods — Part 305: Short-circuit performance*¹

EN 6113, *Aerospace series — Circuit breaker, connecting and attachment hardware*¹

TR 6083, *Aerospace series — Cut-outs for installation of electrical components*²

FED-STD-595B, *Colours used in Government Procurement*

IEC 60934:2019, *Circuit Breakers for Equipment*
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3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

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. The mounting surface is the contact surface with the panel.

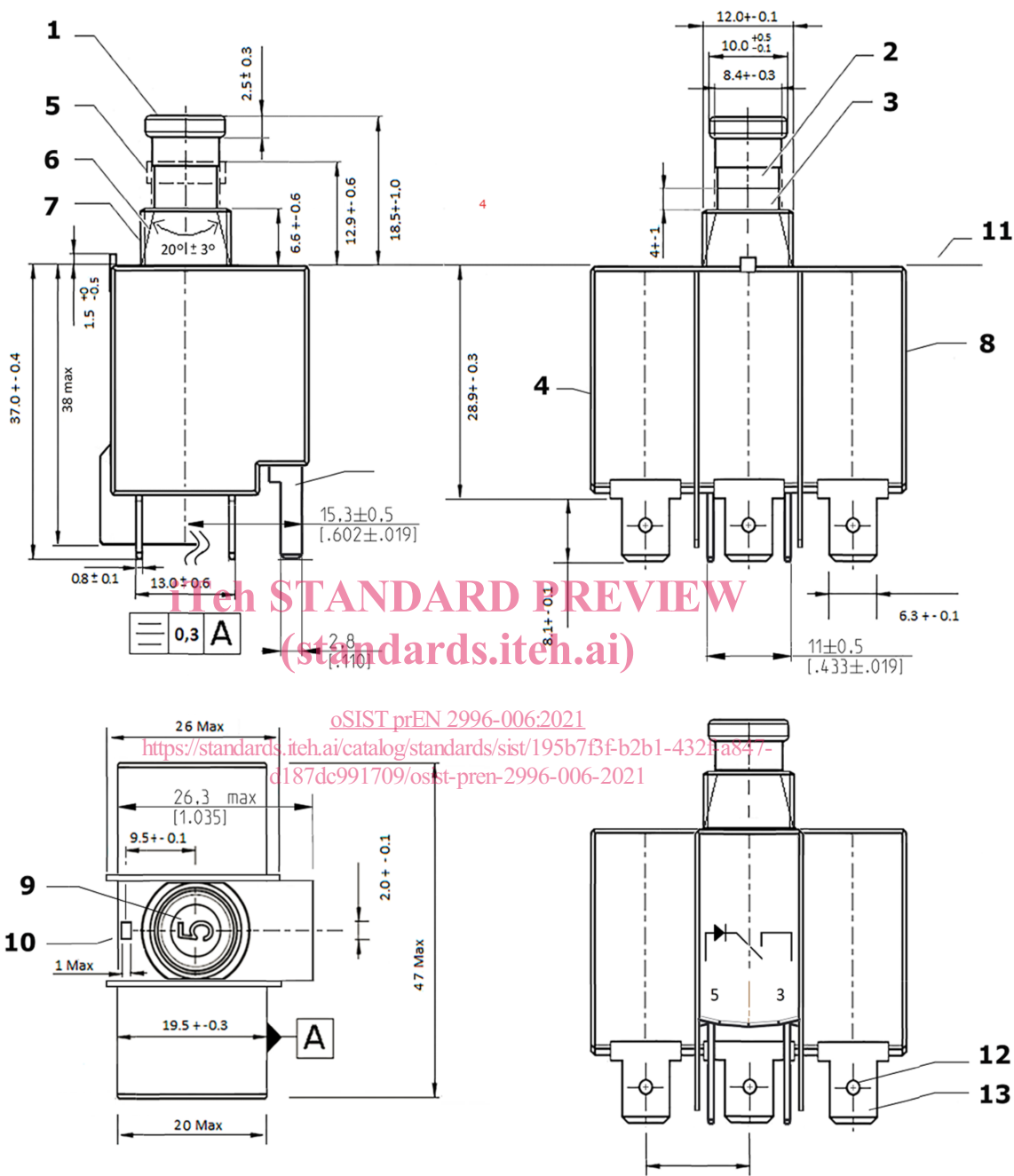
See Figure 1.

¹ Published as ASD-STAN Standard 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 document by AeroSpace and Defence industries Association of Europe — Standardization (ASD-STAN), <http://www.asd-stan.org/>

Standard push button (S):

Dimensions are in millimetres

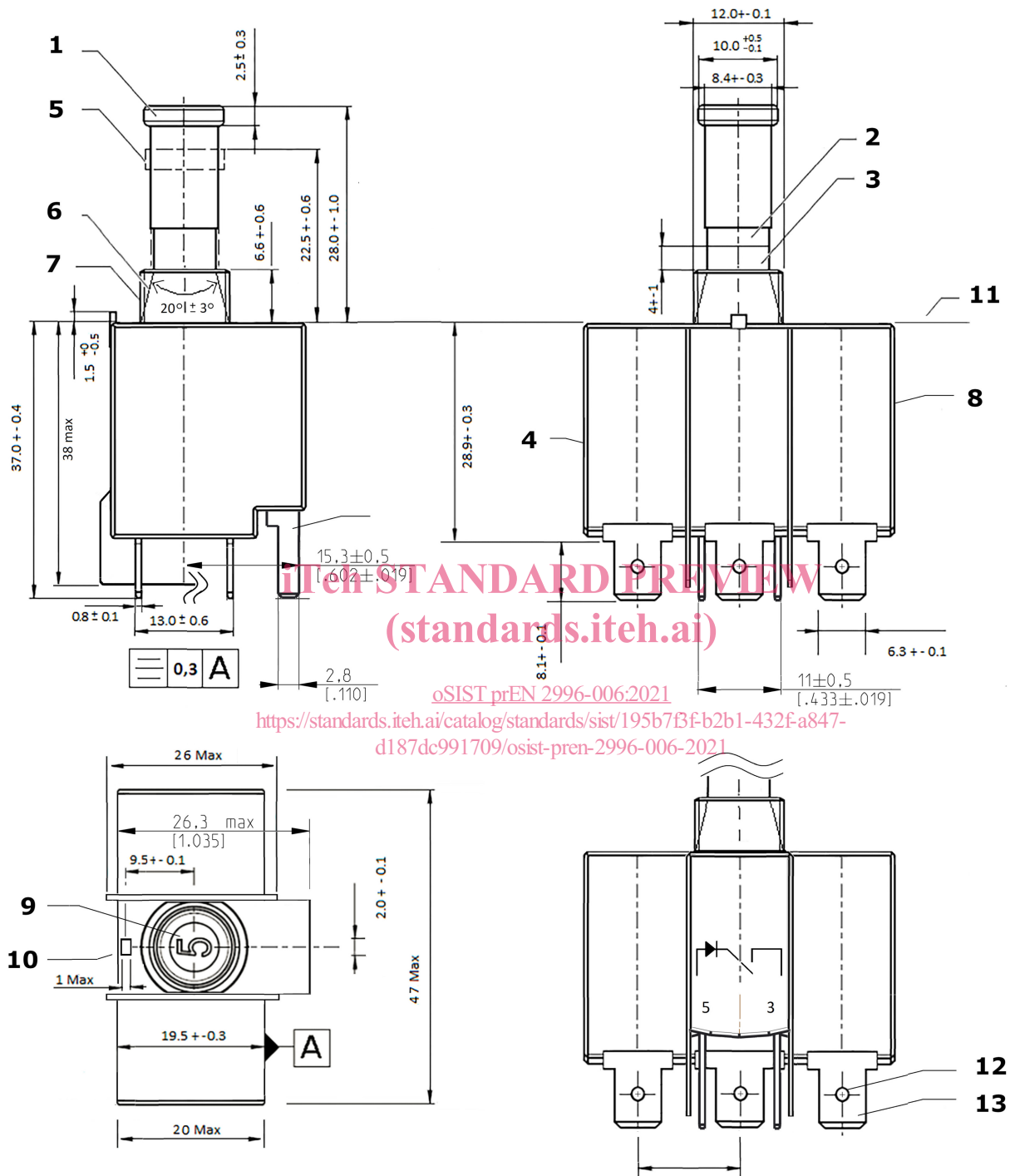


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Extra length push button (L):



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Key

- | | |
|--|--|
| 1 Push button released | 8 Marking, see Clause 9 (terminal identification) |
| 2 Black Colour according to FED-STD-595B | 9 Optional Positioning lug in accordance with the panel cut-out,
as per TR 6083C202 |
| 3 White | 10 Rated current marking (white on green) |
| 4 Marking, see Clause 9 (identity block) | 11 Mounting surface |
| 5 Push button pressed | 12 Optional hole or indent |
| 6 Black conical barrel (C version) | 13 Silver plated blade according to IEC 60934:2019,
Annex E |
| 7 Threaded barrel version (M version) | |

P Pitch: 15,0 or 15,8

NOTE The barrier between phases must be sufficient to guaranty creepage and clearance distance.

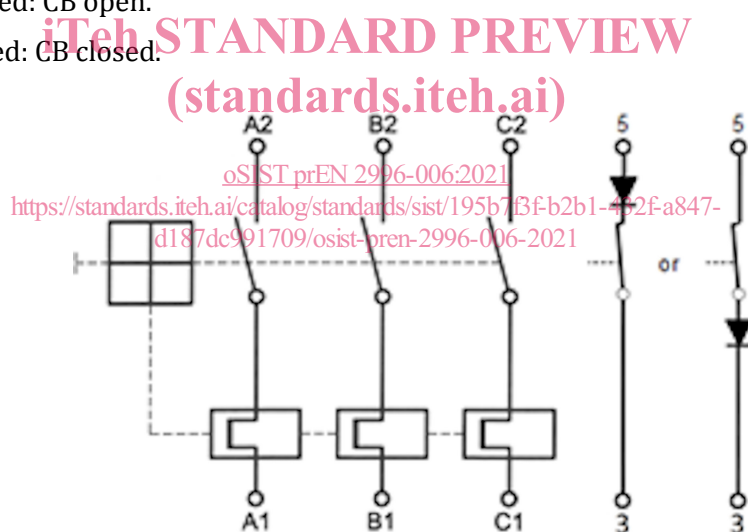
Figure 1 — Circuit breaker

4.2 Electrical diagram

See Figure 2.

Push button released: CB open.

Push button pressed: CB closed.

**Key**

- 1 Supply
- 2 Load

1 and 2 : Main contacts:

1 = Supply and 2 = Load

3 and 5 : Signal contacts

Load and supply can be inverted.

Figure 2 — Electrical diagram

prEN 2996-006:2021 (E)**4.3 Mass**

Mass shall not exceed 83 g.

4.4 Panel mounting

Thickness: 1,5 mm to 3 mm.

See EN 2995-001 for the panel mounting.

5 Characteristics**5.1 Material, surface treatment**

See EN 2995-001.

5.2 Mechanical characteristics**5.2.1 Fasteners**

None.

5.2.2 Recommended tightening torque of attaching nut for installation

(4,00 ± 0,25) N.m (for version with threaded barrel and if nut is needed).

5.2.3 Recommended tightening torque of connection hardware for installation

With 6,3 mm terminal blades, test 2842-505 is not applicable.

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

Sinusoidal : 10 *g*-PK, see EN 3774-001.

Random : 5,8 Grms, see EN 3774-001.

Low frequencies : 10 *g*-PK, see EN 3774-001.

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

Sinusoidal : 3 *g*-PK, see EN 3774-001.

5.2.5 Resistance to shocks

50 *g*-PK, see EN 3774-001.

5.2.6 Mechanical endurance

See Table 6.

5.3 Environment characteristics**5.3.1 Humidity**

See EN 3774-001.

5.3.2 Corrosion

See EN 3774-001.