SLOVENSKI STANDARD
oSIST prEN 3774-006:2020

01-julij-2020

Aeronavtika - Odklopniki, tripolni, temperaturno kompenzirani, za naznačene tokove od 1 A do 25 A - 006. del: Ploski spoji 6,3 mm - Standard za proizvod

Aerospace series - Circuit breakers, three-poles, temperature compensated, rated currents 1 A to 25 A - Part 006: 6,3 blade terminal - Product standard

Luft- und Raumfahrt - Schnutzschalter, dreipolig, temperaturkompensiert, Nennströme von 1 A bis 25 A - Teil 006: Flachsteckverbinder 6,3 - Produktnorm

Série aérospatiale - Disjoncteurs tripolaires compensés en température, intensités nominales 1 A à 25 A - Partie 006 : Raccordement par lame 6,3 - Norme de produit

Ta slovenski standard je istoveten z: **prEN 3774-006**

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

oSIST prEN 3774-006:2020 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 3774-006

May 2020

ICS 49.060

English Version

Aerospace series - Circuit breakers, three-poles, temperature compensated, rated currents 1 A to 25 A - Part 006: 6,3 blade terminal - Product standard

Série aérospatiale - Disjoncteurs tripolaires compensés en température, intensités nominales 1 A à 25 A - Partie 006 : Raccordement par lame 6,3 - Norme de produit

Luft- und Raumfahrt - Schnutzschalter, dreipolig, temperaturkompensiert, Nennströme von 1 A bis 25 A - Teil 006: Flachsteckverbinder 6,3 - Produktnorm

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

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.

This draft European Standard was established by CEN 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

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

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

Ref. No. prEN 3774-006:2020 E

Contents

Page

European foreword 3
1 Scope 4
2 Normative references 4
3 Terms and definitions 4
4 Dimensions and mass 5
5 Characteristics (see EN 3774-001 for the panel mounting) 7
6 Designation 12
7 Rated current code 13
8 Delivery hardware codes 13
9 Marking 13
10 Technical specification 13
Bibliography 14

European foreword

This document (prEN 3774-006:2020) 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 document is currently submitted to the CEN Enquiry.

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 °C and 125 °C for ratings ≤ 15 A and −55 °C to 90 °C for ratings > 15 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 6113, *Aerospace series - Circuit breaker, connecting and attachment hardware*

TR 6083, *Aerospace series - Cut-outs for installation of electrical components*[1]

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

IEC 60934:2019, *Circuit Breakers for Equipment (CBE)*

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/ui
- IEC Electropedia: available at http://www.electropedia.org/

[1] 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/

4 Dimensions and mass

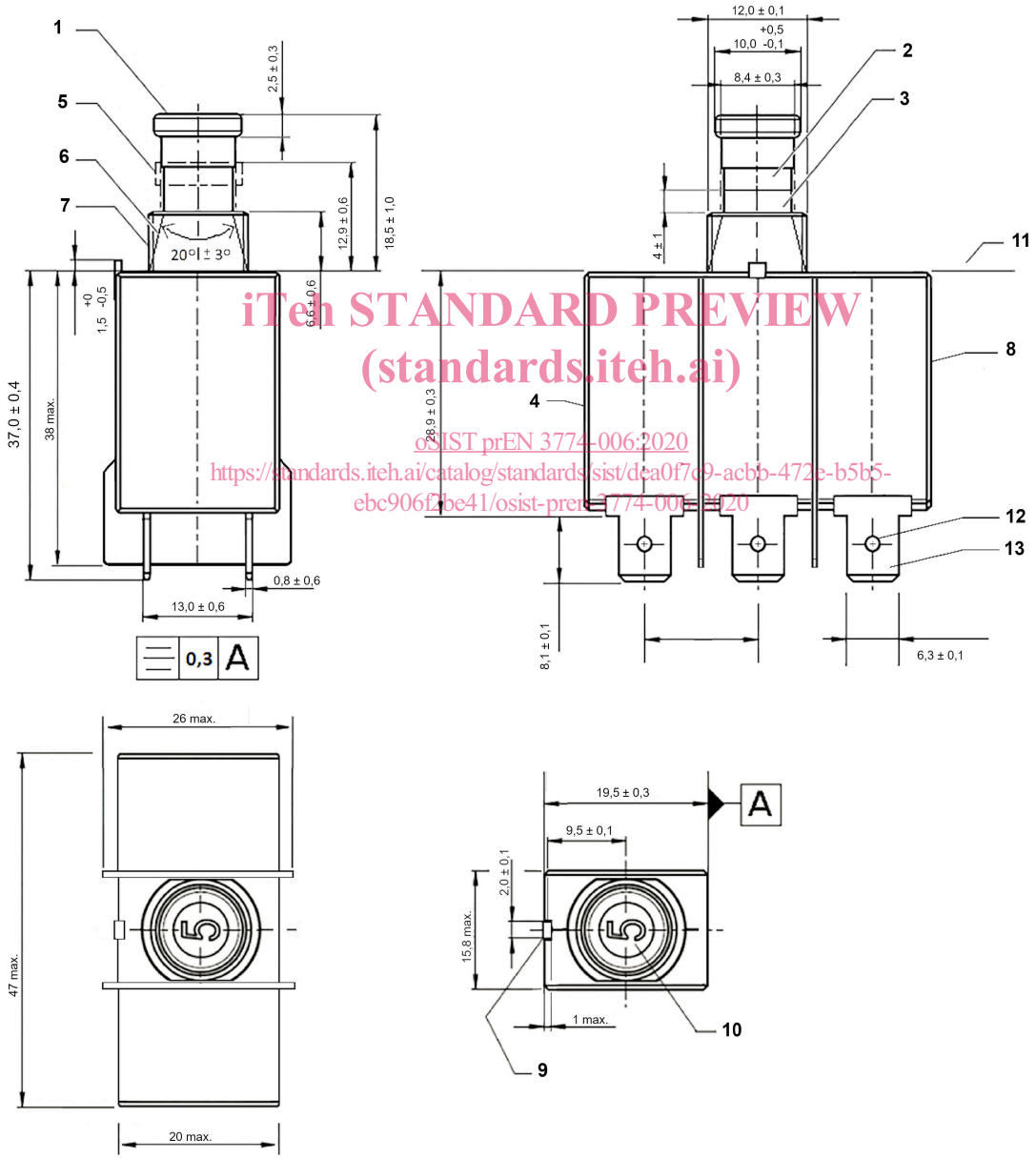
4.1 Dimensional characteristics

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.

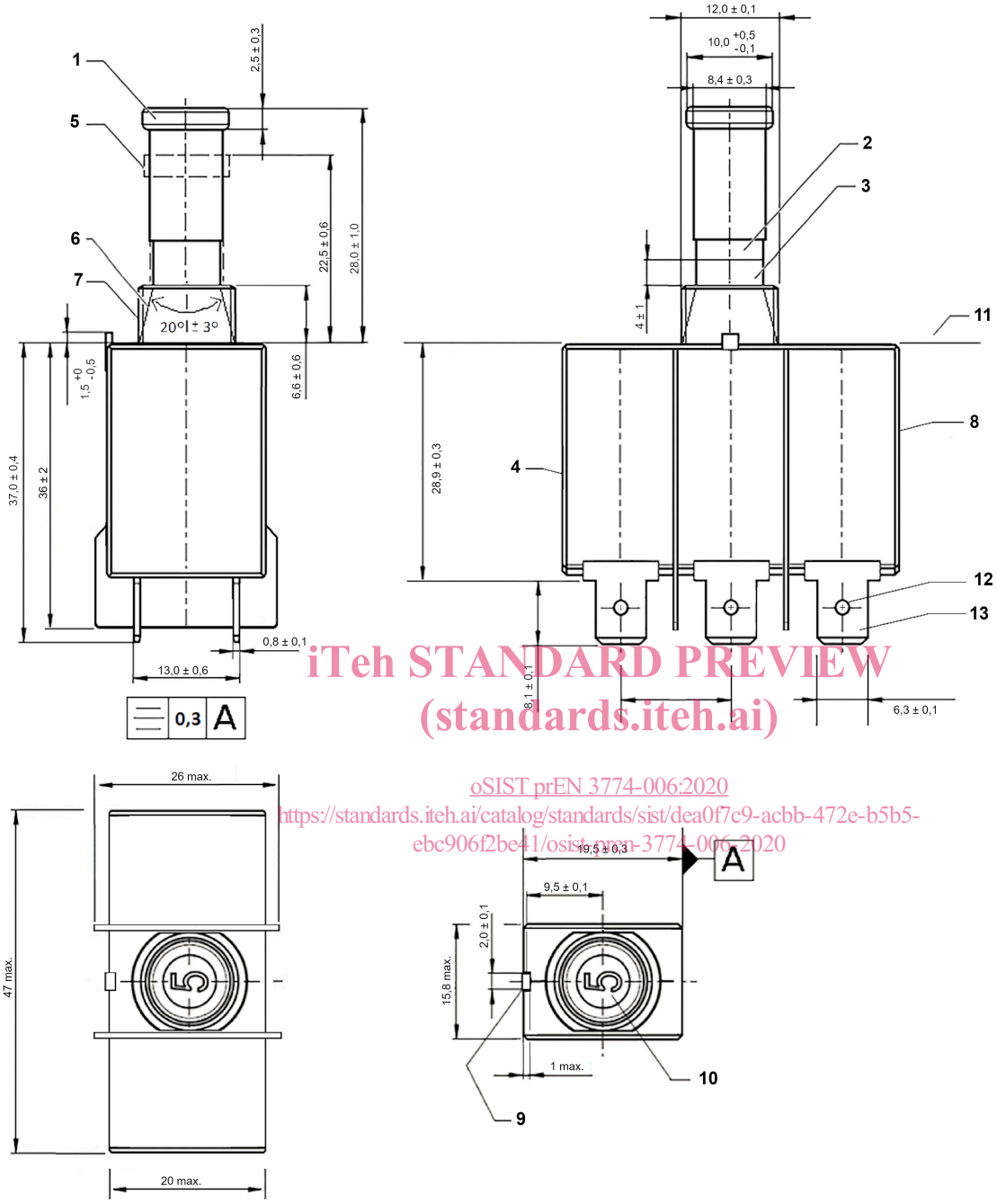
See Figure 1.

Dimensions in millimetres

Standard start button (S):



Extra length push button (L):



Key

1 push button released
2 black colour according to FED-STD-595B
3 white
4 marking, see Clause 8 “Identity block”
5 push button pressed
6 black conical barrel (C version)
7 threaded barrel version (M version)
8 marking, see Clause 8 “Terminal identification”
9 optional positioning lug in accordance with the panel cut-out as per TR 6083 C202
10 rated current marking (white on black)
11 mounting surface
12 optional hole or indent
13 silver plated blade according to IEC 60934:2019, Annex E
P pitch: 15,0 or 15,8 mm

The barrier between phases shall be sufficient to guarantee creepage and clearance distance.

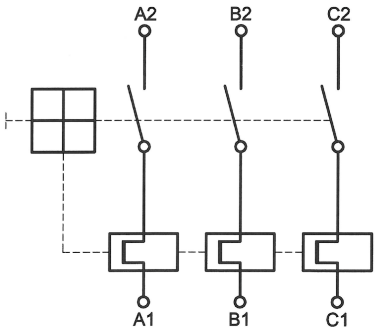
Figure 1 — Circuit breaker

4.2 Electrical diagram

See Figure 2.

Push button released: CB open.

Push button pressed: CB closed.



Key

1 supply

2 load

NOTE Load and supply can be inverted.

Figure 2 — Electrical diagram

4.3 Mass

Mass shall not exceed 63 g.

4.4 Panel mounting

Thickness: 1,5 mm to 3 mm.

5 Characteristics (see EN 3774-001 for the panel mounting)

5.1 Material, surface treatment

See EN 3774-001.

5.2 Mechanical characteristics

5.2.1 Fasteners

None.

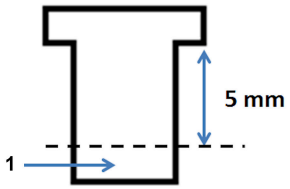
5.2.2 Recommended tightening torque of attaching nut for installation

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

5.2.3 Tensile load of terminals

For blade style terminals a perpendicular load of 25 N max. shall be applied to each terminal successively in increments of 5 N in both directions, applying the load for a period of 1 min. at each increment. After removing the load, the terminal shall have a permanent displacement of no more than 0,5 mm from its initial position.

Position of the application of the load should be at least 5 mm from the shoulder of the blade shown below.



Key

1 correct area for positioning the load

Figure 3

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.

5.3.3 Contaminating liquids

See EN 3774-001.

5.3.4 Overvoltage caused by lightning

See EN 3774-001.