

STN	Letectvo a kozmonautika Jednopolové ističe na poruchový oblúk, tepelne kompenzované, menovitý prúd od 3 A do 25 A, striedavé napätie 115 V, konštantná frekvencia 400 Hz Časť 001: Technická špecifikácia	STN EN 4838-001 31 1748
------------	--	---

Aerospace series - Arc Fault Circuit breakers, single-pole, temperature compensated, rated current 3 A to 25 A - 115 V a.c. 400 Hz
Constant Frequency - Part 001: Technical specification

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/19

Obsahuje: EN 4838-001:2018

127885

EUROPEAN STANDARD

EN 4838-001

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2018

ICS 49.060

English Version

**Aerospace series - Arc Fault Circuit breakers, single-pole,
temperature compensated, rated current 3 A to 25 A - 115
V a.c. 400 Hz Constant Frequency - Part 001: Technical
specification**

Série aérospatiale - Disjoncteurs unipolaires à
détection d'arc compensés en température, intensités
nominales 3 A à 25 A - 115 V a.c. 400 Hz fréquence fixe
- Partie 001: Spécification technique

Luft- und Raumfahrt - Arc Fault Schutzschalter,
einpolig, Temperaturkompensiert, Nennströme von 3
A bis 25 A - 115 V a.c. 400Hz Konstantfrequenz - Teil
001: Technische Lieferbedingungen

This European Standard was approved by CEN on 27 November 2017.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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

EN 4838-001:2018 (E)

Contents		Page
European foreword.....		3
1	Scope.....	4
2	Normative references.....	4
3	Terms and definitions	5
4	Description	5
5	Design.....	5
6	Characteristics	7
7	Tests.....	8
8	Qualification tests.....	16
9	Quality assurance.....	20
10	Marking.....	20
11	Delivery conditions	20
12	Packaging.....	20
13	Storage	20

European foreword

This document (EN 4838-001:2018) 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 February 2019, and conflicting national standards shall be withdrawn at the latest by February 2019.

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

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EN 4838-001:2018 (E)**1 Scope**

This European Standard specifies the single-pole temperature compensated arc fault circuit breakers with or without signal contacts, rated from 3 A to 25 A and used in aircraft on-board circuits. In any operating state a "trip-free" tripping is ensured. These items are designed to protect aircraft wiring system from circuit overload and arc faults. It describes specific environmental, electrical and mechanical characteristics and the stringency of tests to be applied according to test methods of EN 3841-100.

If the design of the arc fault circuit breakers contains software or complex hardware, as a minimum, the software and hardware shall be developed in accordance with EUROCAE ED-12B or C / RTCA DO-178B or C, DAL C and EUROCAE ED-80 / RTCA DO-254, DAL C, respectively.

These arc fault circuit breakers are intended for use in aircraft with electrical supplies in accordance with EN 2282.

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 2083, *Aerospace series — Copper and copper alloys conductors for electrical cables — Product standard*

EN 2266-003, *Aerospace series — Cables, electrical, for general purpose — Operating temperatures between - 55 °C and 200 °C — Part 003: Ink jet printable — Product standard*

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

EN 2825, *Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of smoke density*

EN 2826, *Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of gas components in the smoke*

EN 3841-100 (all parts), *Aerospace series — Circuit breakers — Test methods — Part 100: General*

EN 3844-1, *Aerospace series — Flammability of non metallic materials — Part 1: Small burner test, vertical — Determination of the vertical flame propagation*

EN 9133, *Aerospace series — Procedure Quality Management Systems — Qualification for Aerospace Standard Products*

MIL-I-81969/1-02, *Installing and removal tools, connector electrical contact, Type III, Class 2, composition C* ¹⁾

MIL-I-81969/14-11, *Installing and removal tools, connector electrical contact, Type III, Class 2, composition B* ¹⁾

EUROCAE ED-14E / RTCA DO-160E, *Environmental conditions and test procedures for airborne equipment* ²⁾

EUROCAE ED-12B or C / RTCA DO-178B or C, *Software Consideration in Airborne Systems and Equipment Certification* ²⁾

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

2) Published by: EUROCAE Regional (EU) European Organisation for Civil Aviation Equipment <http://www.eurocae.org/>

EUROCAE ED-80 / RTCA DO-254, *Design Assurance Guidance for Electronic Hardware* ²⁾

AS 5692, *Aerospace Standard Arc Fault Circuit Breaker (AFCB) Aircraft, Trip-Free, Single Phase 115 V a.c.-400Hz — Constant Frequency* ³⁾

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

3) Published by: SAE National (US) Society of Automotive Engineers <http://www.sae.org/>