

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 3662-001:2024 sisaldab Euroopa standardi EN 3662-001:2024 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 18.12.2024.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 3662-001:2024 consists of the English text of the European standard EN 3662-001:2024.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 18.12.2024.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 49.060

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EUROPEAN STANDARD

EN 3662-001

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2024

ICS 49.060

Supersedes EN 3662-001:2006

English Version

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

Série aérospatiale - Disjoncteurs tripolaires compensés
en température, intensités nominales 20 A à 50 A -
Partie 001 : Spécification technique

Luft- und Raumfahrt - Schutzschalter, dreipolig,
temperaturkompensiert, Nennströme von 20 A bis 50
A - Teil 001: Technische Lieferbedingungen

This European Standard was approved by CEN on 6 October 2024.

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, 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, Türkiye and United Kingdom.



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

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European foreword

This document (EN 3662-001:2024) has been prepared by 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 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2025, and conflicting national standards shall be withdrawn at the latest by June 2025.

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.

This document supersedes EN 3662-001:2006.

The main changes with respect to the previous edition are as follows:

- EN 3662-001 (P4), 08/2006:
 - o g_n replaced by g -PK for sinusoidal and low frequencies;
 - o g_n replaced by Grms for random.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this document: 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, Türkiye and the United Kingdom.

1 Scope

This document specifies the three-pole temperature compensated circuit breakers with signal contacts, polarized or not, rated from 20 A to 50 A and used in aircraft on-board circuits. It describes specific environmental, electrical and mechanical characteristics and the stringency of tests to be applied according to test methods of EN 3841-100.

These 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 or copper alloy conductors for electrical cables — Product standard*

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 3841-100,¹ *Aerospace series — Circuit breakers — Test methods — Part 100: General*

EN 3841-201, *Aerospace series — Circuit breakers — Test methods — Part 201: Visual inspection*

EN 3841-202, *Aerospace series — Circuit breakers — Test methods — Part 202: Dimensions and masses*

EN 3841-301:2004, *Aerospace series — Circuit breakers — Test methods — Part 301: Voltage drop*

EN 3841-302, *Aerospace series — Circuit breakers — Test methods — Part 302: Insulation resistance*

EN 3841-303, *Aerospace series — Circuit breakers — Test methods — Part 303: Dielectric strength*

EN 3841-304, *Aerospace series — Circuit breakers — Test methods — Part 304: Tripping points*

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

EN 3841-306, *Aerospace series — Circuit breakers — Test methods — Part 306: Service life*

EN 3841-307, *Aerospace series — Circuit breakers — Test methods — Part 307: Performance with a locked tripping system*

EN 3841-308, *Aerospace series — Circuit breakers — Test methods — Part 308: Lightning*

EN 3841-401, *Aerospace series — Circuit breakers — Test methods — Part 401: Sand and dust*

EN 3841-402, *Aerospace series — Circuit breakers — Test methods — Part 402: Corrosion*

¹ Published as ASD-STAN prEN at the date of publication of this document, available at: <https://www.asd-stan.org/>.

- EN 3841-403, *Aerospace series — Circuit breakers — Test methods — Part 403: Humidity*
- EN 3841-405, *Aerospace series — Circuit breakers — Test methods — Part 405: Fluid resistance*
- EN 3841-406, *Aerospace series — Circuit breakers — Test methods — Part 406: Flammability*
- EN 3841-501, *Aerospace series — Circuit breakers — Test methods — Part 501: Actuator button travel*
- EN 3841-502, *Aerospace series — Circuit breakers — Test methods — Part 502: Operating forces*
- EN 3841-503, *Aerospace series — Circuit breakers — Test methods — Part 503: Strength of actuating components*
- EN 3841-504, *Aerospace series — Circuit breakers — Test methods — Part 504: Strength of mounting elements*
- EN 3841-505, *Aerospace series — Circuit breakers — Test methods — Part 505: Strength of main terminals*
- EN 3841-506, *Aerospace series — Circuit breakers — Test methods — Part 506: Vibration performance*
- EN 3841-507, *Aerospace series — Circuit breakers — Test methods — Part 507: Mechanical shocks*
- EN 3841-508, *Aerospace series — Circuit breakers — Test methods — Part 508: Centrifugal acceleration*
- EN 3841-509, *Aerospace series — Circuit breakers — Test methods — Part 509: Insertion and extraction forces of signal contact terminals*
- EN 3841-510, *Aerospace series — Circuit breakers — Test methods — Part 510: Strength of signal contact terminals*
- EN 3841-511, *Aerospace series — Circuit breakers — Test methods — Part 511: Combined test: temperature, altitude and vibration*
- EN 3844-1, *Aerospace series — Flammability of non-metallic materials — Part 1: Small burner test, vertical — Determination of the vertical flame propagation*
- MIL-I-81969/1A,² *Installing and removal tools, connector electrical contact, type III, class 2, composition C*
- MIL-I-81969/14C,³ *Installing and removal tools, connector electrical contact, type III, class 2, composition B*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 3841-100 apply.

ISO and IEC maintain terminology 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/>

² Published by Department of Defense (DOD), available at: <https://assist.dla.mil/online/start/>.