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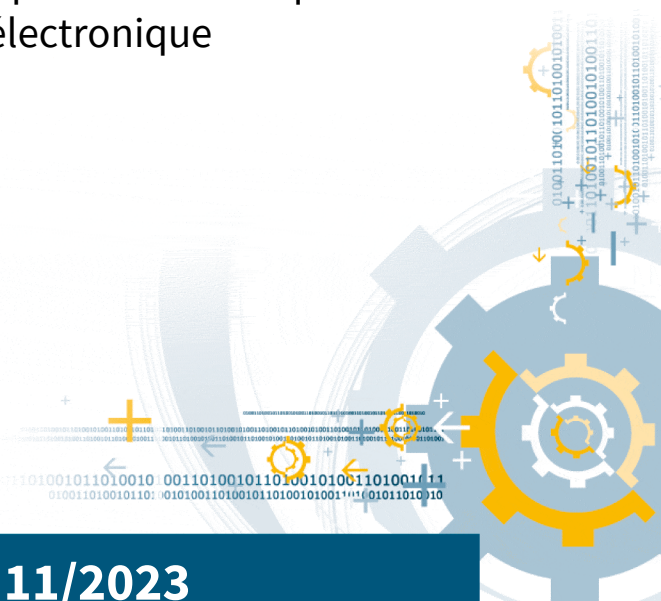
ILNAS-EN 16603-20:2023

**Space engineering - Electrical and
electronic**

Raumfahrttechnik - Elektrik und
Elektronik

Ingénierie spatiale - Électrique et
électronique

11/2023



National Foreword

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Space engineering - Electrical and electronic

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Raumfahrttechnik - Elektrik und Elektronik

This European Standard was approved by CEN on 20 November 2023.

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European Foreword

This document (EN 16603-20:2023) has been prepared by Technical Committee CEN-CENELEC/TC 5 “Space”, the secretariat of which is held by DIN.

This standard (EN 16603-20:2023) originates from ECSS-E-ST-20C Rev.2.

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of an identical text or by endorsement, at the latest by May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

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 16603-20:2020.

The main changes with respect to EN 16603-20:2020 are listed below:

- clause 4.2.1.1 added due to addition of new clause 4.2.1.2;
- addition of requirements in new clause 4.2.1.2 “Reliable insulation”;
- the addition of the new clause 4.2.1.2 made it necessary to add the new header 4.2.1.1 “General requirements” to separate the requirement from the former clause 4.2.1 “Failure containment and redundancy” from the new requirements for “Reliable insulation”;
- update to cover the aspects of “reliable insulation” also known as “double insulation”;
- addition of several terms in clause 3.2 related to the added subject of “Reliable insulation”.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association.

This document has been developed to cover specifically space systems and has therefore precedence over any EN covering the same scope but with a wider domain of applicability (e.g. : aerospace).

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 the United Kingdom.

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Scope

This Standard establishes the basic rules and general principles applicable to the electrical, electronic, electromagnetic, microwave and engineering processes. It specifies the tasks of these engineering processes and the basic performance and design requirements in each discipline.

It defines the terminology for the activities within these areas.

It defines the specific requirements for electrical subsystems and payloads, deriving from the system engineering requirements laid out in ECSS-E-ST-10 “Space engineering – System engineering general requirements”.

This standard may be tailored for the specific characteristics and constraints of a space project in conformance with ECSS-S-ST-00.