

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Safety in installations for electroheating and electromagnetic processing –
Part 6: Particular requirements for high frequency dielectric and microwave
heating and processing equipment**

**Sécurité dans les installations destinées au traitement électrothermique et
électromagnétique –
Partie 6: Exigences particulières pour les équipements de chauffage et de
traitement diélectriques à hautes fréquences et à hyperfréquences**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SAFETY IN INSTALLATIONS FOR ELECTROHEATING
AND ELECTROMAGNETIC PROCESSING –****Part 6: Particular requirements for high frequency dielectric
and microwave heating and processing equipment**

FOREWORD

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IEC 60519-6 has been prepared by IEC technical committee 27: Industrial electroheating and electromagnetic processing. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2011.

This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the structure has been redrafted according to the IEC 60519-1:2020;
- b) the scope and object have been redrafted;
- c) the terms/definitions, normative references and bibliography have been updated and completed;

- d) all requirements and content from IEC 60519-6:2011 which are included in IEC 60519-1:2020 were removed to avoid any duplication;
- e) inclusion of high frequency equipment which was previously covered by IEC 60519-9:2005 (withdrawn). This edition constitutes an extension to high frequency equipment.

The text of this International Standard is based on the following documents:

Draft	Report on voting
27/1142/FDIS	27/1144/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 60519 series, published under the general title *Safety in installations for electroheating and electromagnetic processing*, can be found on the IEC website.

The clauses of this part 6 of the IEC 60519 series (called Particular Requirements) supplement or modify the corresponding clauses of IEC 60519-1:2020 (*General Requirements*), hereinafter called Part 1.

In this standard, the following print types are used:

- requirements and definitions: in roman type;
- NOTES: in smaller roman type;
- terms defined in Clause 3 in this document and in Part 1 are in **bold type**, from Clause 1.

This part of IEC 60519 is to be read in conjunction with Part 1. It supplements or modifies the corresponding clauses of Part 1. Where the text indicates a “modification” of, “addition” to or a “replacement” of the relevant provision of Part 1, these changes shall be made to the relevant text of Part 1. Where no change is necessary, the words “This clause of Part 1 is applicable” are used. When a particular subclause of Part 1 is not mentioned in this part, that subclause applies as far as is reasonable. When a particular subclause of Part 1 is not applicable, the word “void” is used.

Additional specific provisions to those in Part 1, given as individual clauses or subclauses, are numbered starting from 101.

NOTE The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

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INTRODUCTION

Some types of **electroheating equipment**, including the **workload**, can emit hazardous levels of infrared radiation. It has been agreed in the IEC Technical Committee 27 that IEC 60519-12 addresses these infrared radiation aspects for this document.

This document presumes that the **manufacturer** possesses sufficient knowledge in equipment design, manufacturing and documentation in accordance with good engineering practise, and that the installation or equipment is operated and maintained only by personnel consisting of **skilled** or **instructed persons**.

This document is intended to verify whether the installation or equipment meets the requirements of safety, by design, and numerical verification if carefully carried out, site acceptance tests, routine tests or inspection.