

# TECHNICAL SPECIFICATION

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**Technical requirements for electrical sheet metal and strip metal used in rotating electrical machines**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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IEC TS 63573 has been prepared by IEC technical committee 2: Rotating machinery. It is a Technical Specification.

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
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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 Technical Specification 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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

## 1 Scope

This Technical Specification defines specific requirements for materials to be used for the stator and/or rotor core of rotating electrical machines according to the IEC 60034 series. This document applies in addition to IEC 60404- series and is addressed to the suppliers of the raw material (electrical sheet), to producers of magnetic cores (including a possible annealing treatment), to electric motor manufacturers as well as to users of electrical steel. This document does not apply to motor customers.

The objective of this document is to address the immediate needs of motor manufacturers striving to achieve high IEC efficiency classes.

IEC TS 63573 is an independent product-specific specification focusing on rotating electrical machines in accordance with the IEC 60034 series and can be applied as a supplement to IEC 60404-8-4.

At the time of publication of this document it is anticipated that collaboration with IEC Technical Committee 68 (Magnetic alloys and steels) will lead to the development of Amendment 2 to IEC 60404-8-4:2022. This amendment is expected to clarify the relevant issues and provide a comprehensive solution.

This Technical Specification will be withdrawn once Amendment 2 to IEC 60404-8-4:2022 is published and takes effect, provided it addresses the identified need.

## 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.

IEC 60404-1-1:2004, *Magnetic materials - Part 1-1: Classification - Surface insulations of electrical steel sheet, strip and laminations*

IEC 60404-8-4:2022, *Magnetic materials - Part 8-4: Specifications for individual materials - Cold-rolled non-oriented electrical steel strip and sheet delivered in the fully-processed state*

IEC 60404-9:2018, *Magnetic materials - Part 9: Methods of determination of the geometrical characteristics of electrical steel strip and sheet*