

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Conductors for overhead lines – Aluminium and aluminium alloy wires for
concentric lay stranded conductors**

**Conducteurs pour lignes aériennes – Fils d'aluminium et en alliage d'aluminium
pour conducteurs toronnés à couches concentriques**





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IEC 62641

Edition 1.0 2022-03

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 29.060.01; 29.240.20

ISBN 978-2-8322-1080-6

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CONDUCTORS FOR OVERHEAD LINES –
ALUMINIUM AND ALUMINIUM ALLOY WIRES
FOR CONCENTRIC LAY STRANDED CONDUCTORS****FOREWORD**

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IEC 62641 has been prepared by IEC technical committee 7: Overhead electrical conductors. It is an International Standard.

This first edition cancels and replaces the second edition of IEC 60104 published in 1987, the first edition of IEC 60121 published in 1960, the first edition of IEC 60889 published in 1987, and the first edition of IEC 62004 published in 2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous editions of IEC 60104, IEC 60121, IEC 60889 and IEC 62004:

- a) designations of aluminium alloys are modified;
- b) aluminium alloys A4, AL4 and AL5 are added;
- c) wire diameter ranges for indicating mechanical properties are modified and extended;
- d) test methods are merged.

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

Draft	Report on voting
7/713/FDIS	7/721/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.

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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

The purpose of this document is threefold.

First, it is to group together similar wire materials that share the same general characteristics and therefore the same test procedures and requirements. These wires are existing aluminium and aluminium alloy wires from IEC 60104, IEC 60121, IEC 60889 and IEC 62004 as well as from EN 50183.

Secondly, this format allows an easier standard maintenance, as multiple wire materials are covered by a single document instead of separate documents.

Thirdly, this document indicates the most used wire materials worldwide, based on the cooperation agreement between IEC and CENELEC, an IEC questionnaire in 2017 (7/672/Q, Annex A) and a CENELEC questionnaire (7X/SEC0056/CC). The standardized materials form a good basis which can be extended by others used in regions and countries.