SLOVENSKI STANDARD
SIST EN IEC 60947-6-1:2026

01-julij-2026

Nadomešča:
SIST EN IEC 60947-6-1:2023

Nizkonapetostne stikalne in krmilne naprave - 6-1. del: Večfunkcijska oprema - Preklopna stikalna oprema (IEC 60947-6-1:2026)

Low-voltage switchgear and controlgear - Part 6-1: Multiple function equipment - Transfer switching equipment (IEC 60947-6-1:2026)

Niederspannungsschaltgeräte - Teil 6-1: Mehrfunktionsschaltgeräte - Netzumschalter (IEC 60947-6-1:2026)

Appareillage à basse tension - Partie 6-1: Matériels à fonctions multiples - Equipement de transfert de source (IEC 60947-6-1:2026)

Ta slovenski standard je istoveten z: **EN IEC 60947-6-1:2026**

ICS:

29.120.40	Stikala	Switches
29.130.20	Nizkonapetostne stikalne in krmilne naprave	Low voltage switchgear and controlgear

SIST EN IEC 60947-6-1:2026 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60947-6-1

May 2026

ICS 29.120.40; 29.130.20

Supersedes EN IEC 60947-6-1:2023

English Version

Low-voltage switchgear and controlgear - Part 6-1: Multiple function equipment - Transfer switching equipment (IEC 60947-6-1:2026)

Appareillage à basse tension - Partie 6-1: Matériels à fonctions multiples - Équipement de transfert de source (IEC 60947-6-1:2026)

Niederspannungsschaltgeräte - Teil 6-1: Mehrfunktionsschaltgeräte - Netzumschalter (IEC 60947-6-1:2026)

This European Standard was approved by CENELEC on 2026-05-07. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 60947-6-1:2026 E

European foreword

The text of document 121A/711/FDIS, future edition 4 of IEC 60947-6-1, prepared by SC 121A "Low-voltage switchgear and controlgear" of IEC/TC 121 "Switchgear and controlgear and their assemblies for low voltage" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60947-6-1:2026.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2027-05-31
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2029-05-31

This document supersedes EN IEC 60947-6-1:2023 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

This document is read in conjunction with EN IEC 60947-1:2021.

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60947-6-1:2026 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60034-12:2024	NOTE	Approved as EN IEC 60034-12:2024 (not modified)
IEC 60079 (series)	NOTE	Approved as EN IEC 60079-7:2015/A1 (series)
IEC 60364-5-56:2018	NOTE	Approved as HD 60364-5-56:2018 (not modified)
IEC 60947-3:2020	NOTE	Approved as EN IEC 60947-3:2021 (not modified)
IEC 60947-6-2:2020	NOTE	Approved as EN IEC 60947-6-2:2023 (not modified)
IEC 61010-2-201:2024	NOTE	Approved as EN IEC 61010-2-201:2024 (not modified)
IEC 61439 (series)	NOTE	Approved as EN IEC 61439 (series)
IEC 62310 (series)	NOTE	Approved as EN 62310 (series)
IEC 62443 (series)	NOTE	Approved as EN IEC 62443-4-2:2019/AC:2022-09 (series)
IEC/TR 63201:2019	NOTE	Approved as CLC IEC/TR 63201:2020 (not modified)

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60068-2-2	2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	2007
IEC 60417	2025	Graphical symbols for use on equipment - 12-month subscription to regularly updated online database comprising all graphical symbols published in IEC 60417	-	-
IEC 60715	2017	Dimensions of low-voltage switchgear and controlgear - Standardized mounting on rails for mechanical support of switchgear, controlgear and accessories	EN 60715	2017
IEC 60812	2018	Failure modes and effects analysis (FMEA and FMECA)	EN IEC 60812	2018
IEC 60947-1	2020	Low-voltage switchgear and controlgear - Part 1: General rules	EN IEC 60947-1	2021
IEC 60947-2	2024	Low-voltage switchgear and controlgear - Part 2: Circuit-breakers	EN IEC 60947-2	2025
IEC 60947-4-1	2023	Low-voltage switchgear and controlgear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motor-starters	EN IEC 60947-4-1	2025
IEC 60947-5-1	2024	Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices	EN IEC 60947-5-1	2025
IEC 61000-4-13	2002	Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques - Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests	EN 61000-4-13	2002
+ A1	2009		+ A1	2009
+ A2	2015		+ A2	2016

IEC 61439-1	2020	Low-voltage switchgear and controlgear assemblies - Part 1: General rules	EN IEC 61439-1	2021
IEC 61439-2	2020	Low-voltage switchgear and controlgear assemblies - Part 2: Power switchgear and controlgear assemblies	EN IEC 61439-2	2021
IEC 61557-12	2018	Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 12: Power metering and monitoring devices (PMD)	EN IEC 61557-12	2022
+ A1	2021		+ A1	2022
IEC 61812-1	2023	Time relays and coupling relays for industrial and residential use - Part 1: Requirements and tests	EN IEC 61812-1	2024
IEC 63208	2025	Low-voltage switchgear and controlgear and their assemblies - Security requirements	EN IEC 63208	2025
CISPR 11	2024	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement	EN IEC 55011	2025

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INTERNATIONAL STANDARD

Low-voltage switchgear and controlgear -
Part 6-1: Multiple function equipment - Transfer switching equipment

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Low-voltage switchgear and controlgear - Part 6-1: Multiple function equipment - Transfer switching equipment

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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IEC 60947-6-1 has been prepared by sub-committee 121A: Low-voltage switchgear and controlgear, of IEC technical committee 121: Switchgear and controlgear and their assemblies for low voltage. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2021. This edition constitutes a technical revision.

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

– clarification of scope;
– clarification of terms and definitions;
– Annex C for Bypass/Isolation Transfer Switch Equipment;
– Annex D for ATSE having closed transition capability;

– Annex E for Stand-alone ATS controller;
– Annex F for TSE used with electric driven fire pump control equipment.

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

Draft	Report on voting
121A/711/FDIS	121A/719/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/publications.

A list of all the parts in the IEC 60947 series, published under the general title *Low-voltage switchgear and controlgear*, can be found on the IEC website.

This document is to be read in conjunction with IEC 60947-1:2020, *Low voltage switchgear and controlgear - Part 1: General rules*.

The provisions of the general rules are applicable to IEC 60947-6-1 where specifically called for. General rules clauses and subclauses thus applicable as well as tables, figures and appendices are identified by reference to IEC 60947-1:2020, for example, 1.2.3, Table 4, or Annex A of IEC 60947-1:2020.

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 in the data related to the specific document. At this date, the document will be

– reconfirmed,
– withdrawn, or
– revised.

INTRODUCTION

The availability of power in low voltage electrical installations is playing an ever increasing role in modern society. In fact, this requirement is a fundamental characteristic for the creation of economically and functionally efficient installations. A system able to switch a load from one source to another safely and with minimum disturbance to the load reduces problems caused by faulty conditions in the normal supply to the minimum.

All these operations, commonly known as "transfer switching", control the installations and can be done automatically, remotely or manually.

Therefore, an installation with installed "transfer switching" capability:

– ensures the continuity of production processes;
– provides a backup source of power if the main network is out of service;
– reduces the effect caused by network faults on parts of the installation;
– achieves a good compromise between reliability, simplicity and cost-effectiveness;
– provides the facility manager and managing system with a power source able to supply all or part of the installation.

Key factors motivating customers to use Transfer Switch Equipment (TSE) include:

– the continuous world growth population, the increasing number of electronic devices and the new demands of electric vehicles;
– the mediated pressure on climate change with a resulting increase in the cost of energy;
– the evolution of the electricity market with a greater number of alternate energy sources;
– the user’s expectations of better grid reliability, better economic performance, and a desire to manage their energy.

Stakeholders involved in the management of electricity also have new expectations:

– customers want to reduce the cost of their energy and to have a quality energy supply;
– suppliers want to reinforce confidence to their customers;
– producers expect to optimize their investments;
– governments and regulators are willing to create a competitive and sustainable energy market.

Today, the performance of transfer switching equipment is defined by TSE manufacturers and also by this document. Consultants, integrators, facility managers and end users rely on this document for their power availability needs.

Transfer switching is often realised by implementing a transfer function within the electrical installation, and this critical function needs to be appropriately designed. Using a TSE following the requirements of this document ensure the safety and the performance of the transfer function which are necessary for reaching the objectives listed above.