IEC 60669-2-2

Edition 4.0 2024-03
REDLINE VERSION

INTERNATIONAL STANDARD

colour inside

Switches for household and similar fixed electrical installations – Part 2-2: Particular requirements – Electromagnetic remote-control switches (RCS)

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SWITCHES FOR HOUSEHOLD AND SIMILAR FIXED ELECTRICAL INSTALLATIONS –

Part 2-2: Particular requirements – Electromagnetic remote-control switches (RCS)

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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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 60669-2-2:2006. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 60669-2-2 has been prepared by subcommittee 23B: Plugs, socket-outlets and switches, of IEC technical committee 23: Electrical accessories. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2006. This edition constitutes a technical revision.

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

a) Revision of the present edition with reference to IEC 60669-1:2017 (Edition 4);
b) Introduction of a revision to Annex E "Additional requirements and tests for switches intended to be used at a temperature lower than −5 °C".

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

Draft	Report on voting
23B/1486/FDIS	23B/1500/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.

This part of IEC 60669 is to be used in conjunction with IEC 60669-1:2017. It lists the changes necessary to convert that standard into a specific standard for electromagnetic remote-control switches.

When a particular subclause of IEC 60669-1:2017 is not mentioned in this document, that subclause applies as far as reasonable.

In this document, the following print types are used:

– requirements proper: in roman type;
– *test specifications: in italic type;*
– notes: in smaller roman type.

Subclauses, figures or tables or notes which are additional to those in IEC 60669-1:2017 are numbered starting from 101.

A list of all parts of IEC 60669 series, under the general title *Switches for household and similar fixed electrical installations*, can be found on the IEC website.

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SWITCHES FOR HOUSEHOLD AND SIMILAR FIXED ELECTRICAL INSTALLATIONS –

Part 2-2: Particular requirements – Electromagnetic remote-control switches (RCS)

1 Scope

IEC 60669-1:2017, Clause 1 is applicable except as follows:

Replacement of the first ~~sentence~~ paragraph with the following:

This part of IEC 60669 applies to electromagnetic remote control switches (hereinafter referred to as electromagnetic RCS) with a rated voltage not exceeding 440 V AC and a rated current not exceeding 63 A, intended for household and similar fixed electrical installations, either indoors or outdoors. For the control circuit, the rated control voltage does not exceed 440 V AC or 220 V DC.

The RCS coil ~~may or may not~~ can be either permanently energized or not permanently energized.

Electronic RCS are within the scope of IEC 60669-2-1 but not of this document.

RCS including only passive components such as resistors, capacitors, positive temperature coefficient (PTC) and negative temperature coefficient (NTC) components and printed ~~wiring~~ circuit boards are not considered to be electronic RCS.

~~Contactors are not covered by this standard.~~

Electromechanical contactors for household and similar purposes are within the scope of IEC 61095.

2 Normative references

IEC 60669-1:2017, Clause 2 is applicable with the following additions:

IEC 60085:~~2004~~2007, *Electrical insulation – Thermal ~~classification~~ evaluation and designation*

IEC 60317 (all parts), *Specifications for particular types of winding wires*

IEC 60445:~~1999~~2021, *Basic and safety principles for man-machine interface, marking and identification – Identification of equipment terminals ~~and of terminations of certain designated conductors, including general rules for an alphanumeric system~~, conductor terminations and conductors*

IEC 60664-1:2020, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 60664-3:2016, *Insulation coordination for equipment within low-voltage systems – Part 3: Use of coating, potting or moulding for protection against pollution*

IEC 60669-1:2017, *Switches for household and similar fixed electrical installations – Part 1: General requirements*

~~IEC 60669-2-1:2002, *Switches for household and similar fixed electrical installations – Part 2-1: Particular requirements – Electronic switches*~~

~~IEC 61140, *Protection against electric shock – Common aspects for installation and equipment*~~

IEC 61558-2-6:~~1997~~2021, *Safety of ~~power~~ transformers, reactors, power supply units and ~~similar~~ combinations thereof – Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers for general ~~use~~ applications*

IEC 60669-2-2

Edition 4.0 2024-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Switches for household and similar fixed electrical installations – Part 2-2: Particular requirements – Electromagnetic remote-control switches (RCS)

Interrupteurs pour installations électriques fixes domestiques et analogues – Partie 2-2: Exigences particulières – Interrupteurs à commande à distance (télérupteurs)

IEC 60669-2-2:2024-03(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Part 2-2: Particular requirements – Electromagnetic remote-control switches (RCS)

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IEC 61558-2-6:2021, *Safety of transformers, reactors, power supply units and combinations thereof – Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers for general applications*

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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INTERRUPTEURS POUR INSTALLATIONS ÉLECTRIQUES FIXES DOMESTIQUES ET ANALOGUES –

Partie 2-2: Exigences particulières – Interrupteurs à commande à distance (télérupteurs)

AVANT-PROPOS

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L'IEC 60669-2-2 a été établie par le sous-comité 23B: Prises de courant et interrupteurs, du comité d'études 23 de l'IEC: Petit appareillage. Il s'agit d'une Norme internationale.

Cette quatrième édition annule et remplace la troisième édition parue en 2006. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) révision de la présente édition avec référence à l'IEC 60669-1:2017 (Édition 4);
b) introduction d'une révision de l'Annexe E "Exigences et essais supplémentaires pour les interrupteurs à utiliser à une température inférieure à −5 °C".

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
23B/1486/FDIS	23B/1500/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/standardsdev/publications.

La présente partie de l'IEC 60669 est destinée à être utilisée conjointement avec l'IEC 60669-1:2017. Elle énumère les modifications nécessaires pour transformer cette norme en une norme spécifique pour les interrupteurs à commande à distance.

Lorsqu'un paragraphe particulier de l'IEC 60669-1:2017 n'est pas mentionné dans le présent document, ce paragraphe s'applique pour autant que cela soit raisonnable.

Dans le présent document, les caractères d'imprimerie suivants sont utilisés:

– exigences proprement dites: caractères romains;
– *modalités d'essais: caractères italiques;*
– notes: petits caractères romains.

Les paragraphes, figures, tableaux ou notes qui sont ajoutés à ceux de l'IEC 60669-1:2017 sont numérotés à partir de 101.

Une liste de toutes les parties de la série IEC 60669, publiées sous le titre général *Interrupteurs pour installations électriques fixes domestiques et analogues*, se trouve sur le site web de l'IEC.

Le comité a décidé que le contenu de ce document ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous webstore.iec.ch dans les données relatives au document recherché. À cette date, le document sera

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INTERRUPTEURS POUR INSTALLATIONS ÉLECTRIQUES FIXES DOMESTIQUES ET ANALOGUES –

Partie 2-2: Exigences particulières – Interrupteurs à commande à distance (télérupteurs)

1 Domaine d'application

L'Article 1 de l'IEC 60669-1:2017 s'applique, avec les exceptions suivantes:

Remplacement du premier alinéa par le suivant:

La présente partie de l'IEC 60669 s'applique aux interrupteurs à commande à distance (désignés ci-après télérupteurs électromagnétiques) de tension assignée qui ne dépasse pas 440 V en courant alternatif et de courant assigné qui ne dépasse pas 63 A, prévus pour installations électriques fixes domestiques et analogues intérieures ou extérieures. Pour le circuit de commande, la tension de commande assignée ne dépasse pas 440 V en courant alternatif ou 220 V en courant continu.

La bobine du télérupteur peut être alimentée en permanence ou non alimentée en permanence.

Les télérupteurs électroniques sont couverts par le domaine d'application de l'IEC 60669-2-1, mais pas par celui du présent document.

Les télérupteurs qui comportent uniquement des composants passifs tels que des résistances, des condensateurs, des composants à coefficient de température positif (CTP) et coefficient de température négatif (CTN) et des cartes de circuits imprimés ne sont pas considérés comme des télérupteurs électroniques.

Les contracteurs électromécaniques pour usages domestiques et analogues relèvent du domaine d'application de l'IEC 61095.

2 Références normatives

L'Article 2 de l'IEC 60669-1:2017 s'applique, avec les ajouts suivants:

IEC 60085:2007, *Isolation électrique – Évaluation et désignation thermiques*

IEC 60317 (toutes les parties), *Spécifications pour types particuliers de fils de bobinage*

IEC 60445:2021, *Principes fondamentaux et de sécurité pour les interfaces homme-machines, le marquage et l'identification – Identification des bornes de matériels, des extrémités de conducteurs et des conducteurs*

IEC 60664-1:2020, *Coordination de l'isolement des matériels dans les réseaux d'énergie électrique à basse tension – Partie 1: Principes, exigences et essais*

IEC 60664-3:2016, *Coordination de l'isolement des matériels dans les systèmes (réseaux) à basse tension – Partie 3: Utilisation de revêtement, d'empotage ou de moulage pour la protection contre la pollution*

IEC 60669-1:2017, *Interrupteurs pour installations électriques fixes domestiques et analogues – Partie 1: Exigences générales*

IEC 61558-2-6:2021, *Safety of transformers, reactors, power supply units and combinations thereof – Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers for general applications* (disponible en anglais uniquement)