IEC 60669-2-4

Edition 2.0 2024-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Switches for household and similar fixed electrical installations – Part 2-4: Particular requirements – Isolating switches

Interrupteurs pour installations électriques fixes domestiques et analogues – Partie 2-4: Exigences particulières – Interrupteurs-sectionneurs



IEC 60669-2-4:2024-03(en-fr)



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SWITCHES FOR HOUSEHOLD AND SIMILAR FIXED ELECTRICAL INSTALLATIONS –

Part 2-4: Particular requirements – Isolating switches

FOREWORD

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IEC 60669-2-4 has been prepared by subcommittee 23B: Plugs, socket-outlets and switches, of IEC technical committee 23: Electrical accessories. It is an International Standard.

This second edition cancels and replaces the first edition published in 2004. 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 the published IEC 60669-1:2017 Edition 4 with its amendments and references to clauses and tables;
b) introducing the values for isolating switches with ratings from 6 A to 13 A;

c) introducing a circuit motor load with a rated current not exceeding 10 A and a power factor not less than 0,6 in the scope;

d) modification of Table 1 and Table 5.

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

Draft	Report on voting
23B/1460/CDV	23B/1480A/RVC

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 isolating 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, tables or notes which are additional to those in IEC 60669-1:2017 are numbered starting from 101. Annexes additional to those in IEC 60669-1:2017 are lettered AA, BB, etc.

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.

SWITCHES FOR HOUSEHOLD AND SIMILAR FIXED ELECTRICAL INSTALLATIONS –

Part 2-4: Particular requirements – Isolating switches

1 Scope

Clause 1 of IEC 60669-1:2017 applies except as follows.

Replacement of the first paragraph with the following:

This part of IEC 60669 applies to manually operated general purpose isolating switches with a rated voltage not exceeding 440 V and a rated current not exceeding 125 A, intended for household and similar fixed electrical installations, either indoors or outdoors.

Replacement of the fifth dash of the third paragraph:

– a monophase circuit for motor load with a rated current up to 10 A and a power factor not less than 0,6.

NOTE 101 Isolating switches are designed for overvoltage category III and used in environment of pollution degree 2 according to IEC 60664-1.

2 Normative references

Clause 2 of IEC 60669-1:2017 applies except as follows.

Addition:

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

IEC 61180:2016, *High-voltage test techniques for low-voltage equipment – Definitions, test and procedure requirements, test equipment*

3 Terms and definitions

Clause 3 of IEC 60669-1:2017 applies except as follows.

Additional definitions:

3.101
isolating switch
switch designed to provide isolation of the installation or part of the installation and equipment from the supply and to carry and to make and break the current in all line current carrying poles

3.102
rated conditional short-circuit current
I_{nc}
value of the AC component of a prospective current assigned by the manufacturer, which a switch without integral short-circuit protection, but protected by a suitable short-circuit protective device (hereinafter referred to as SCPD) in series, can withstand under specified conditions of use and behaviour

3.103
Joule integral
I^2t
integral of the square of the current over a given time interval (t_0, t_1)

$$I^2t = \int_{t_0}^{t_1} i^2 \mathrm{d}t$$

[SOURCE: IEC 60050-441:1984, 441-18-23 – modified with the deletion of the notes and addition of "(t_0, t_1)".]

4 General requirements

Clause 4 of IEC 60669-1:2017 applies.

5 General remarks on tests

Clause 5 of IEC 60669-1:2017 applies except as follows.

Replace Table 1 with the following:

Table 1 – Number of specimens needed for the tests

Clauses and subclauses		Number of specimens	Number of additional specimens for dual current rating
6	Ratings	A	
7	Classification	A	
8	Marking	A	
9	Checking of dimensions	ABC	
10	Protection against electric shock	ABC	
11	Provision for earthing	ABC	
12	Terminals [a,f,l]	ABC	JKL
13	Constructional requirements [b, m]	ABC	
14	Mechanism	ABC	
15	Resistance to ageing, protection provided by enclosures of switches, and resistance to humidity	ABC	
16	Insulation resistance and electric strength [c]	ABC	
17	Temperature rise	ABC	JKL
18	Making and breaking capacity	ABC [i]	JKL
19	Normal operation	ABC [i]	JKL