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**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 14048.3-2025**

Replacing GB/T 14048.3-2017

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**Low-voltage switchgear and controlgear - Part 3: Switches,  
disconnectors, switch-disconnectors and fuse-combination  
units**

低压开关设备和控制设备 第3部分：开关、隔离器、隔离开关及熔断器组合电器  
(English Translation)

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### Foreword

This document was issued on 31 October 2025 by the State Administration for Market Regulation and the Standardization Administration of the People's Republic of China, and takes effect on 1 May 2026.

It replaces GB/T 14048.3-2017, which remains in force until that date.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer, customer or certification body applies.

This document was drafted in accordance with the rules given in GB/T 1.1-2020, Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents.

This document is Part 3 of GB/T 14048, Low-voltage switchgear and controlgear, a series whose parts cover the general rules (Part 1), circuit-breakers (Part 2), switches and disconnectors (Part 3), contactors and motor-starters (Parts 4-1 to 4-3), control circuit devices and switching elements (Parts 5-1 to 5-9), multiple function equipment (Parts 6-1 and 6-2), ancillary equipment such as terminal blocks (Parts 7-1 to 7-4), control units for built-in thermal protection (Part 8) and active arc-fault mitigation systems (Part 9-1).

Compared with GB/T 14048.3-2017, the main technical changes are:

- a critical load current test for DC equipment is added (see 9.3.9);
- additional requirements for short-circuit withstand capability with circuit-breaker protection

are added (see 9.3.7.2);

- damp heat, salt spray, vibration and shock tests are added (see 9.5.4);
- new utilization categories for switching high-efficiency motors are added (see Table 2 and Annex A);
- operating performance at lower ambient temperatures is added in Annex D (see D.8.2.4.2.2);
- Annex E, additional requirements for low-voltage switchgear intended for the connection of aluminium conductors, is added;
- Annex F, power loss, is added.

This document is identical to IEC 60947-3:2020, Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units.

This document was proposed by the China Electrical Equipment Industry Association.

## 1 Scope

This document applies to switches, disconnectors, switch-disconnectors and fuse-combination units and their dedicated accessories to be used in distribution circuits and motor circuits of which the rated voltage does not exceed 1,000 V AC or 1,500 V DC.

**Note 1:** Accessories are interconnecting units, extended terminals, internal coils, auxiliary contacts, motor operators, etc., offered as options with the basic unit.

This document does not apply to equipment coming within the scope of IEC 60947-2, IEC 60947-4-1 and IEC 60947-5-1.

Particular requirements for switches, disconnectors, switch-disconnectors and fuse-combination units for use in photovoltaic (PV) DC applications are given in Annex D.

Specific requirements for low-voltage switchgear intended for the connection of aluminium conductors are given in Annex E.

Guidance on the measurement of power loss is provided in Annex F.

This document does not include the additional requirements necessary for electrical apparatus for explosive gas atmospheres.

**Note 2:** Depending on its design, a switch (or disconnector) can be referred to as a rotary switch (disconnector), cam-operated switch (disconnector), knife-switch (disconnector), etc.

**Note 3:** In this document, the word switch also applies to the apparatus referred to in French as commutateurs, intended to modify the connections between several circuits and, inter alia, to substitute a part of a circuit for another.

**Note 4:** In general, throughout this document, switches, disconnectors, switch-disconnectors and fuse-combination units are referred to as equipment.

The object of this document is to state: a) the characteristics of the equipment; b) the conditions that apply to the equipment with reference to operation and behaviour, dielectric properties, degrees of protection provided by the enclosure and construction; c) the tests intended to confirm that these conditions have been met; d) the information to be marked on the equipment or made available by the manufacturer.