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

GB 47372-2026

Safety technical specification for power banks

移动电源安全技术规范

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1 Scope

GB 47372-2026 is the Chinese national standard covering the portable battery pack - the cell and its protection, the charge and discharge control, the behaviour on overcharge, short circuit, crush and thermal abuse, the enclosure and the marking. A mandatory standard and a first edition, arriving after the aviation restrictions that followed power bank fires on aircraft. At 22,000 words, in force from 1 April 2027. It was issued on 31 March 2026 and takes effect on 1 April 2027, as a first edition. The document is under the responsibility of the Ministry of Industry and Information Technology. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the safety requirements for power banks and describes the corresponding test methods. This document is applicable to power banks with a rated input voltage of AC 220 V and/or DC not exceeding 250 V, and an output voltage of DC and/or AC. NOTE. AC 220 V includes input voltage ranges up to AC 220 V, such as AC 100 V to AC 240 V.

2 Normative References

The contents of the following documents constitute indispensable clauses of this document through normative references in the text. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB 1002 Single phase plugs and socket-outlets for household and similar purposes - Types, basic parameters and dimensions

GB/T 1003 Three phases plugs and socket-outlets for household and similar purposes - Types, basic parameters and dimensions

GB/T 2099.1 Plugs and socket-outlets for household and similar purposes - Part

3 Terms and Definitions

The terms and definitions defined in GB 4943.1 and GB 31241, as well as the following terms and definitions, are applicable to this document. NOTE. Sections

3.25 define the term "battery" or "battery pack", not "power bank".

3.1 Power Bank A power system designed to be carried by a user, consisting of batteries or battery packs, corresponding circuitry, and a casing, providing stable DC and/or AC output, and weighing no more than 18 kg. NOTE

1.Power banks include portable power banks and portable energy storages. NOTE

2.Mobile phones, tablets, and laptops with reverse charging capabilities (including wired and wireless methods) are not considered power banks.

3.2 Portable Power Bank A power bank with a total rated energy of less than 160 Wh for its batteries or battery pack. NOTE

1.Portable power banks are commonly known as power banks. NOTE

2.Portable power banks generally use a universal interface or wireless charging to charge other devices. Universal interfaces include Universal Serial Bus (USB) interfaces. If portable lamps, speakers, or other devices contain batteries and can charge other devices via a universal interface or wireless charging, they are considered to have power bank functionality. NOTE

3.However, portable charging devices (charging cases, charging boxes, etc.) with a total rated battery capacity greater than 600 mAh are considered to have power bank functionality. NOTE

4.Power supplies that only power specific devices are not considered portable power banks.

3.3 Portable Energy Storage

3.23 End of Discharge Voltage Ude The voltage at the end of discharge of the battery or battery pack recommended by the manufacturer. [Source: GB 31241-2022, 3.14]

3.24 Thermal Runaway The phenomenon of uncontrollable temperature rise in the battery caused by exothermic reactions. [Source: GB 44240-2024, 3.28]

3.25 Magnetic Impurity The presence of magnetic impurities in lithium-ion battery materials that can be attracted by magnets. NOTE. Harmful magnetic impurities in lithium-ion battery materials mainly include iron (Fe), chromium (Cr), nickel (Ni), and zinc (Zn). [Source: SJ/T 11795-2022, 3.1]

4 Test Conditions

4.1 Test Environment Conditions Unless otherwise specified, the test shall generally be conducted under the following conditions.

a) Ambient temperature. $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$;

b) Relative humidity. Not greater than 75%;

c) Atmospheric pressure. 86 kPa to 106 kPa.

4.2 Charging Procedure Charge the power bank according to any of the methods specified by the manufacturer. NOTE. The fully charged status indicator of the power bank must be indicated on the product itself or in the instructions for use.

4.3 Discharging Procedure Discharge the power bank according to any of the methods specified by the manufacturer. NOTE. The fully discharged status indicator of the power bank must be indicated on the product itself or in the instructions for use.

4.4 Pretreatment The power bank shall be fully charged according to the charging procedure in 4.2, and then fully discharged according to the discharging procedure in 4.3. After each full charge and discharge, it shall be allowed to rest for at least 1 h, for a total of 2 charge-discharge cycles. The charging, discharging, and pretreatment of lithium-ion batteries shall be carried out according to GB 31241. For other types of batteries, refer to the corresponding battery standards. If no corresponding standard exists, refer to GB 31241.

4.5 Single Fault Conditions Simulated faults or abnormal operating conditions shall be applied sequentially, simulating one fault at a time. Faults directly resulting from the simulation of fault conditions (such as direct device damage) are considered part of the fault condition. When setting a single fault, this single fault refers to the failure of any single component. Reasonably foreseeable fault conditions shall be determined by examining the circuit board, circuit diagram, and component datasheet. For example.

- a) Short-circuit and open-circuit of any two pins of semiconductor devices (such as protective switching transistors);
- b) Short-circuit and open-circuit of current-limiting devices (such as fuses);
- c) Short-circuit and open-circuit of capacitors;
- d) Short-circuit and open-circuit of voltage-limiting devices. NOTE. Single fault conditions do not apply to components used for safety protection that already comply with the relevant requirements of Appendix G of GB 4943.1-2022 and/or comply with relevant national or industry standards for components.

4.6 Type Test

4.6.1 Sample requirements Unless otherwise specified, the sample to be tested shall be a representative sample of the product to be received by the user, including small-batch trial production samples or products ready for delivery to the user. Neither the samples nor the products used in type testing shall use recycled batteries. If the test requires the introduction of wires for testing or connection, the total resistance generated by the introduction of wires for testing or connection shall be less than 20 mΩ.

4.7 Parameter Measurement Tolerances Unless otherwise specified, the accuracy of all