

ICS 29.120.30



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

GB/T 11918.1-2014

**Plugs, socket-outlets and couplers for industrial purposes --
Part 1: General requirements
(English Translation)**

Issued on: October 5, 2025

Implemented on: May 1, 2026

Issued by: State Administration for Market Regulation

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1 Scope

This document specifies the structural, mechanical, electrical performance technical requirements for industrial plugs, fixed or mobile sockets and appliance input sockets (hereinafter referred to as "electrical accessories").

This document applies to electrical accessories, which are mainly used for industrial purposes, indoors and outdoors, with a rated operating voltage not exceeding 1000 V DC or 1000 V AC, a frequency not exceeding 500 Hz, a rated current not exceeding 800 A.

These electrical accessories are intended for installation only by trained or skilled person.

The listed preferred ratings do not preclude other ratings.

This document applies to electrical accessories intended for use in environments typically ranging from -25 °C ~ +40 °C.

These electrical accessories are intended for connection only with copper or copper alloy cables.

This document applies to electrical accessories of Series I with a rated current not exceeding 32 A and Series II with a rated current not exceeding 30 A, featuring screwless type terminals or insulation piercing terminals.

Use of these electrical accessories on construction sites, or for agricultural, commercial, or domestic applications is not excluded.

Fixed sockets or appliance input sockets installed in or fixed to electrical equipment are within the scope of this document. This document also applies to electrical accessories intended for use in extra-low voltage installations.

This document does not apply to electrical accessories primarily for domestic use or similar general purposes.

This document does not include single-pole electrical accessories.

In special locations, such as on ships or in areas prone to explosion, additional requirements may apply.

2 Normative references

The following documents, through normative references within the text, constitute essential provisions 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.

GB/T 2423.3 Environmental testing - Part 2. Testing method - Test Cab. Damp heat, steady state (GB/T 2423.3-2016, IEC 60068-2-78.2012, IDT)

GB/T 2423.22 Environmental testing - Part 2. Test methods - Test N. Change of temperature (GB/T 2423.22-2012, IEC 60068-2-14.2009, IDT)

GB/T 3956-2008 Conductors of insulated cables (IEC 60228.2004, IDT)

GB/T 4207 Method for the determination of the proof and the comparative tracking indices of solid insulating materials (GB/T 4207-2022, IEC 60112.2020, IDT)

GB/T 4208-2017 Degrees of protection provide by enclosure (IP code) (IEC 60529.2013, IDT)

GB/T 5013.4-2008 Rubber insulated cables of rated voltages up to and including 450/750 V - Part 4. Cords and flexible cables (IEC 60245-4.2004, IDT)

GB/T 5023 (All Parts) Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V [IEC 60227 (All Parts)]

Note: GB/T 5023.1-2008 Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V - Part 1. General requirements (IEC 60227-1.2007, IDT)

GB/T 5023.2-2008 Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V - Part 2. Test methods (IEC 60227-2.2003, IDT)

GB/T 5023.3-2008 Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V - Part 3. Non-sheathed cables for fixed wiring (IEC 60227-3.1997, IDT)

GB/T 5023.4-2008 Polyvinyl chloride insulated cables with rated voltages up to and including 450/750V - Part 4. Sheathed cables for fixed wiring (IEC 60227-4.1997, IDT)

GB/T 5023.5-2008 Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V - Part 5. Flexible cables (cords) (IEC 60227-5.2003, IDT)

GB/T 5023.6-2006 Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V - Part 6. Lift cables and cables for flexible connections (IEC 60227-6.2001, IDT) purposes [IEC 60320 (all parts)]

Note: GB/T 17465.1-2022 Appliances couplers for household and similar general purposes

- Part 1.General requirements (IEC 60320-1.2021, MOD)

GB/T 17465.3-2008 Appliance couplers for household and similar general purposes - Part

2.Appliance couplers with a degree of protection higher than IPX0 (IEC 60320-2-3.2005, IDT)

GB/T 17465.4-2015 Appliance couplers for household and similar general purposes - Part

2-4.Couplers dependent on appliance weight for engagement (IEC 60320-2-4.2009, MOD)

GB/T 17465.5-2017 Appliance couplers for household and similar general purposes - Part

2-1.Sewing machine couplers (IEC 60320-2-1.2000, MOD)

GB/T 17465.6-2022 Appliance couplers for household and similar general purposes - Part

3.Standard sheets and gauges (IEC 60320-3.2018, MOD)

GB/T 17799.2 General standard for electromagnetic compatibility - Part 2.

Immunity standards in industrial environments (GB/T 17799.2-2023, IEC 61000-6-2.2016, MOD)

GB 17799.3 General standards for electromagnetic compatibility - Part 3.Emissions from equipment in residential environments (GB 17799.3-2023, IEC 61000-6-

3.2020, IDT)

GB/T 20002.4 Drafting for special aspects in standards - Part 4.Safety aspects for their inclusion in standards (GB/T 20002.4-2015, ISO/IEC Guide 51.2014, MOD)

IEC TR 60083 Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC

3 Terms and definitions

The following terms and definitions apply to this document.

Note 1: Wherever the terms "voltage" or "current" are used, they refer to DC values or the root mean square value of AC.

Note 2: The purpose of electrical accessories is shown in Figure 1.

3.1

Fixed socket-outlet

The part intended to be installed with fixed wiring or within equipment.