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

GB 13140.1-2008

Replacing GB 13140.1-1997

**[GB/T 13140.1-2008] Connecting devices for low-voltage circuits
for household and similar purposes -- Part I: General
requirements**

(English Translation)

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Foreword

All the technical contents of this Part of GB 13140 are mandatory.

GB 13140 Connecting Devices for Household and Similar Fixed Electrical Installations can be divided into two Parts:

Part 1: General Requirements (GB 13140.1)

Part 2: Particular Requirements (GB 13140.2 ~ GB 13140.5)

--- Particular Requirements for Connecting Devices as Separate Entities with Screw-Type Clamping Units;

--- Particular Requirements for Connecting Devices as Separate Entities with Screwless-Type Clamping;

--- Particular Requirements for Connecting Devices as Separate Entities with Insulation Piercing Clamping Units;

--- Particular Requirements for Twist-On Connecting Devices.

This Part is Part 1: General Requirements.

This Part equivalently adopts IEC 60998-1:2002 Connecting Devices for Low-Voltage Circuits for Household and Similar Purposes - Part 1: General Requirements.

This Part replaced GB 13140.1-1997 Connecting Devices for Low-Voltage Circuits for Household and Similar Purposes - Part 1: General Requirements. Compared with GB 13140.1-1997, the major changes of this Part are as follows:

- 1) Clause 1: Change the range of rated connection capacity from "0.5mm² ~ 35mm²" to "0.2mm² ~ 35mm²"; change the standard that the requirements are met from "IEC 60228" to "GB/T 3956-2008 or GB/T 18213-2000".
- 2) Clause 1: Change the second paragraph from "except for twist-on connecting devices, which meet the requirements of... in this Part" to "except for twist-on connecting devices, and connecting devices with insulation piercing units, which meet the requirements of... in this Part".
- 3) Clause 6: Change the preferred value of the rated insulation voltage.
- 4) Clause 7: Delete the article "7.7 Classification by terminal type".
- 5) Clause 8: Add f).
- 6) Clause 9: Delete the content of the original second paragraph "Generally, connecting devices without housings can be regarded as devices without protection against electric shock. If there is protection against electric shock, the following provisions apply."
- 7) Clause 13: Delete the content of the original first paragraph "Usually, connecting devices without housings have no protection against electric shock. For connecting devices with protection against electric shock, in addition to 13.1 is applicable, the following requirements shall be added".
- 8) Clause 14: The test methods of "drum test" and "impact test" directly apply the relevant standards; and this part deletes the method requirements and the corresponding Figures 1

~ 4.

9) Clause 15: Change 15.1 from "the temperature rise will not exceed the value specified in Part 2" to "the temperature rise will not exceed the value specified in 15.4".

10) Clause 16: The test method of "ball pressure test" directly applies the relevant standards, and the temperature of the ball pressure test changes; this part deletes the method requirements and the corresponding Figure 5.

11) Clause 17: Change the title.

12) Clause 18: Change the standard for the glow wire test from GB 5169.4 to GB/T5169.10; and add one paragraph at the end of this Clause "In case of doubt, the test may be repeated on two other specimens, and both shall comply with requirements for this test".

13) Add a Clause "Clause 20 Electromagnetic Compatibility (EMC) Requirements".

The Annexes A and B of this Part are informative.

1 Scope

This part of GB 13140 applies to connecting devices for household and similar purposes as separate units. The AC rated voltage of these connecting devices shall not exceed 1000V, the frequency shall not exceed 1000Hz, AND THE DC rated voltage shall not exceed 1500V. It can electrically connect the two or more hard copper conductors (solid or stranded) or soft copper conductors with the cross-section area of 0.2mm² ~ 35mm² (including 35mm²) and the appropriate AWG wire gauge. These hard or soft copper conductors shall meet the requirements of GB/T 3956-2008 or GB/T 18213-2000.

NOTE: The connector with rated connecting capacities lower than 0.5 mm² can refer to GB/T 18213-2000; and the connector with rated connecting capacities greater than or equal to 0.5 mm² can refer to GB/T 3956-2008.

Connecting devices complying with the requirements of this Part shall not require the use of special tools for connection, except for twist-on connecting devices and insulation piercing connecting devices.

This Part contains the general requirements to be used together with the relevant Part 2, containing detailed particular requirements for:

- devices with screw-type clamping units (GB 13140.2);
- devices with screwless-type clamping units (GB 13140.3);
- devices with insulation piercing clamping units (GB 13140.4);
- devices with twist-on connecting devices (GB 13140.5).

2 Normative References

The provisions in following documents become the provisions of this Part of GB 13140 through reference in this Standard. For dated references, the subsequent amendments (excluding corrigendum) or revisions do not apply to this Standard, however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.