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

GB 13140.4-2008

Replacing GB 13140.4-1998

**[GB/T 13140.4-2008] Connecting devices for low voltage circuits for household
and similar purposes -- Part 2: Particular requirements for connecting devices as
separate entities with insulation piercing clamping units**

(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 2 of GB 13140 "Particular Requirements for Connecting Devices as Separate Entities with Insulation Piercing Clamping Units" with the No. of GB 13140.4.

This Part shall be used in conjunction with GB 13140.1.

This Standard equivalently adopts IEC 60998-2-3:2002 Connecting Devices for Low-Voltage Circuits for Household and Similar Purposes - Part 2-3: Particular Requirements for Connecting Devices as Separate Entities with Insulation-Piercing Clamping Units.

This Part replaced GB 13140.4-1998 Connecting Devices for Low Voltage Circuits for Household and Similar Purposes - Part 2: Particular Requirements for Connecting Devices as Separate Entities with Insulation Piercing Clamping Units. Compared with GB 13140.4-1998, the major changes of this Part are as follows:

- 1) Change the rated connecting capacity range of GB 13140.4-1998 from 0.5mm² ~ 35.0mm² to 0.2mm² ~ 35.0mm².
- 2) Add the requirements of 8.102 in Clause 8.
- 3) Move the AWG part of Table 101 to Annex BB.
- 4) Change the range of standard diameters in Table 102, and add titles and legends.
- 5) Delete the contents of 14.101 in GB 13140.4-1998.
- 6) Adjust the sequence of 14.104.1~14.101.2.2 in GB 13140.4-1998 to the content of 10.106~10.107.
- 7) Add title to Table 103.
- 8) Make corresponding revisions against the formula for calculating the tensile force in Clause 10.
- 9) Add the requirements of 11.104 in Clause 11.

10) Due to coordination and cooperation with the new version of GB 13140.1, change the title of Clause 17 to "Electrical Clearance and Creepage Distance", and the content is also changed accordingly.

11) Add Clause 20 [Electromagnetic Compatibility (EMC) Requirements].

12) Due to coordination and cooperation with the new version of GB13140.1, make corresponding revision against the contents of Annex AA.

13) Add the contents of Annex BB.

This Part's Annex AA is normative; while the Annex BB is informative.

1 Scope

This Clause of GB 13140.1-2008 is applicable except as follows: Addition:

This Part of GB 13140 applies to connecting devices with insulation piercing clamping units primarily suitable for connecting insulated unprepared conductors.

In the connecting operation the insulation of the conductor is pierced, bored through, cut through, removed, displaced or made ineffective in some other manner at the point or points of contact.

NOTE: In the text of this standard, connecting devices with insulation piercing clamping units are referred to as IPCDs (insulation-piercing connecting devices).

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.

This Clause of GB 13140.1-2008 is applicable except as follows: Addition:

GB 5013 (all parts) Rubber Insulated Cables of Rated Voltages up to and including 450/750V (IEC 60245, IDT)

GB 5023 (all parts) Polyvinyl Chloride Insulated Cables of Rated Voltages up to and including 450/750V (IEC 60227, IDT)