

JB

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

JB/T 8734.3-2012

Replacing JB/T 8734.3-1998

**Polyvinyl chloride insulated cables and wires and cords of
rated voltages up to and including 450/750V - Part 3: Cords and
cables for connecting**

额定电压450/750V 及以下聚氯乙烯绝缘电缆电线和软线 第3部分：连接用软电线
和软电缆

(English Translation)

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1 Scope

This Part of JB/T 8734 specifies use characteristics, models, specifications, technical requirements and inspection of cords and cables for connecting.

This Part is only applicable to PVC insulated copper cords and cables for connecting of electrical appliance, instruments and dynamic lighting of which the AC rated voltage U_o/U is 300/500 V and less.

2 Normative references

The following referenced documents are indispensable for the application 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 2951.11-2008 Common test methods for insulating and sheathing materials of electric and optical cables - Part 11: Methods for general application - Measurement of thickness and overall dimensions

GB/T 2951.12-2008 Common test methods for insulating and sheathing materials of electric and optical cables - Part 12: Methods for general application - Thermal ageing methods

GB/T 2951.14-2008 Common test methods for insulating and sheathing materials of electric and optical cables - Part 14: Methods for general application - Test at low temperature

GB/T 2951.31-2008 Common test methods for insulating and sheathing materials of electric and optical cables - Part 31: Methods specific to PVC compounds - Pressure test at high temperature - Test for resistance to cracking

GB/T 2951.32-2008 Common test methods for insulating and sheathing materials of electric and optical cables - Part 32: Methods specific to PVC compounds - Loss of mass test - Thermal stability test

6.1 General

In addition to the technical requirements specified in this Part, the cords and cables shall also comply with the provisions of JB/T 8734.1-2012.

6.2 Conductor

The number of cores and structure of conductor shall comply with the provisions of Table 3 and Table 5.

RVB cord conductor shall use the 6 th soft copper conductor specified in GB/T 3956-2008.

RVV cable conductor shall use the 5 th soft copper conductor specified in GB/T 3956-2008. The maximum conductor resistance value of copper core conductor of which the nominal cross-sectional area is 2.0 mm

2 at 20°C is 9.79 ohm/km. The maximum conductor resistance value of tinned copper core conductor of which the nominal cross-sectional area is 2.0 mm

2 at 20°C is 10.2 ohm/km.

6.3 Insulation

The insulation of extrusion on conductor should be PVC blend of which the code is PVC/D.

The insulation thickness shall comply with the provisions in Table 3 ~ Table 5.

The insulation resistance shall not be less than the predetermined values in Table 3 ~ Table 5.

6.4.1

Insulated cores of RVS cords shall be twisted together. RVS cable

should be twisted to the right and the pitch shall not exceed 8 times the average outer diameter upper limit.

6.4.2

RVB cord conductor shall be placed parallel with extruded insulation.

There should be a groove at the insulation sides between conductors, so as to isolate the insulated cores.

6.4.3

For RVV cables, insulated cores with or without same nominal cross-sectional area can be twisted together.

6.5 Sheathing

The sheathing extruded on insulation or stranding core should be PVC blend of which the code is PVC/ST5.

The sheathing thickness shall comply with the provisions in Table 5.

The sheathing is allowed to fill the gap between insulated cores so as to form the filling. But the sheathing does not stick to the insulated core.

6.6 Outer diameter

The average outer diameter of cord or cable shall comply with the provisions in Table 3 ~ Table 5.

The number of cores x nominal cross-sectional area mm

2

Predetermined value of insulation thickness mm

Predetermined value of sheathing thickness mm

Average shape size mm

Lower limit Upper limit

The minimum resistance value of conductor at 70°C

NOTE: Cable structure of other number of cores or more is allowed to use.