

JB

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

JB/T 8734.2-2012

Replacing JB/T 8734.2-1998

**Polyvinyl chloride insulated cables and wires and cords of
rated voltages up to and including 450/750V - Part 2: Insulated
cables and wires for fixed wiring**

额定电压450/750V 及以下聚氯乙烯绝缘电缆电线和软线 第2部分：固定布线用电
缆电线

(English Translation)

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1 Scope

This Part of JB/T 8734 specifies the operating characteristics, models, specifications, technical requirements, and inspection of cables and wires for fixed wiring.

This Part applies to copper core or aluminum core polyvinyl chloride insulated cables and wires that are used in AC rated voltage U_0/U up to and including 450/750V.

2 Normative references

The articles contained in the following documents have become part of this document when they are quoted herein. For the dated documents so quoted, all the modifications (Including all corrections) or revisions made thereafter shall be applicable to this document.

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 - Tests for determining the mechanical properties

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

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GB/T 5023.2-2008 Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V - Part 2: Test methods

GB/T 18380.12-2008 Test on electric and optical fibre cables under fire conditions -

Part 12: Test for vertical flame propagation for a single insulated wire or cable -

Procedure for 1kW pre-mixed flame

JB/T 8734.1-2012 Polyvinyl chloride insulated cables and wires and cords of rated voltages up to and including 450/750V - Part 1: General requirements

3.1

The rated voltages U_0/U of wires and cables are 450/750V and 300/500V.

3.2

Allowable long-term working temperature of all types of cables and wires shall not exceed 70°C.

3.3

Laying temperature of cables and wires shall not below 0°C. The allowable bending radius of cables and wires, with external diameter (D) of less than 25mm, shall be not less than 4D. And allowable bending radius of cables and wires, with external diameter (D) of 25mm or above, shall not be less than 6D.

4 Models

Cables and wires' models are shown in Table 1.

Table 1 Models and names

Models Names Primary usage

BV Copper core polyvinyl chloride insulated wire Fixed wiring

BLV Aluminum core polyvinyl chloride insulated cable Fixed wiring

BVR Copper core polyvinyl chloride insulated flexible cable

Flexible site is required during fixing the wires

BVV Copper core polyvinyl chloride insulated polyvinyl chloride sheathed round cable

Fixed wiring

BLVV Aluminum core polyvinyl chloride insulated polyvinyl chloride sheathed round cable

Fixed wiring

BVVB Copper core polyvinyl chloride insulated polyvinyl chloride sheathed flat cable

Fixed wiring

BLVVB Aluminum core polyvinyl chloride insulated polyvinyl chloride sheathed flat cable

Fixed wiring

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5 Specifications

Specifications of cables and wires are shown in Table 2.

Table 2 Specifications

Models

Rated voltage V

Core number

Nominal sectional area of conductor with the unit of mm

2

Structural parameters table number

BV 300/500 1 0.75-1.0 Table 3

BLV 450/750 1 2.5-400 Table 4

BVR 450/750 1 0.75-185 Table 5

BVV 300/500 1 0.75-185 Table 6

BLVV 300/500 1 2.5-185 Table 6

BVVB 300/500 2-3 0.75-10 Table 7

BLVVB 300/500 2-3 2.5-10 Table 7

6.1 General principle

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

6.2 Conductor

Core number and structure of conductor shall comply with the provisions in Table 3 - Table 7.

6.3 Insulation

The insulation wrapped on the conductor shall be polyvinyl chloride compound with code of PVC/C.

Insulation thickness shall comply with the provisions of Table 3 - Table 7.

Insulation resistance shall not be less than the values specified in Table 3 - Table 7.

6.4 Insulated core cabling

Insulated core of flat cable shall be placed in parallel.

6.5 Sheath

The sheath wrapped on the insulation or finished cable core shall be polyvinyl chloride compound with code of PVC/ST4.

7.2 Sheath - - - T T GB/T 2951.31-2008 9.2

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Flame non-propagation test

T T T T T

GB/T 18380.12-2008

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Mark - rubbing resistance inspection

T, S T, S T, S T, S T, S GB/T 5023.2-2008 1.8

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