

1. Wire

PVC insulated wire and cable

Reference Standards:

The product is manufactured according to the standards of GB5023-1997 and Jb8734-1998 or IEC,BS,DIN and ICEA upon request

Application:

The products is suitable for power installation fixed wiring or flexible connection for el-electrical appliances with rated voltage up to and including 450/750V respectively.

Operating Characteries:

- Rated voltage U_0/U :450/750V\300/500V and 300/300V.
- Max. Permissible continuous operating temperature of the conductor:

2271EC 07(BV-90)	90°C
2271EC 08(RV-90)	90°C
Other models	70°C
- The ambient temperature under installation shall not below 0°C.
- The bending radius of cable:

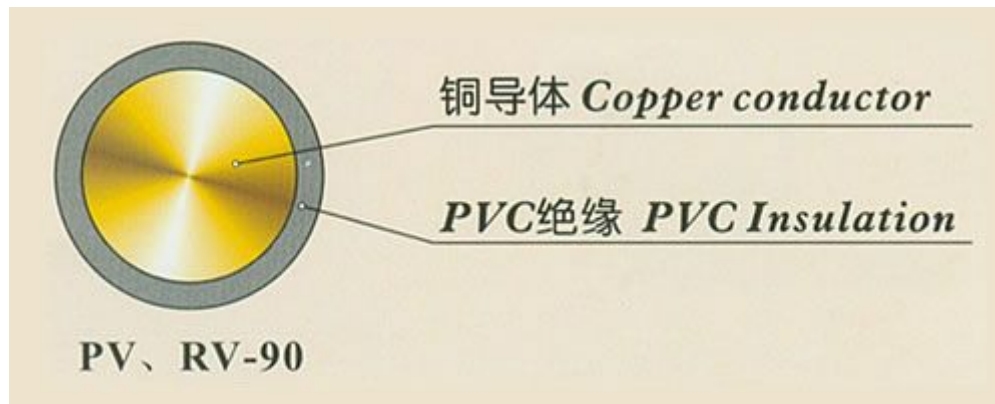
$D \leq 25\text{mm}$	$\geq 4D$
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$D > 25\text{mm}$ $\geq 6D$
(D-Diameter of the cable)

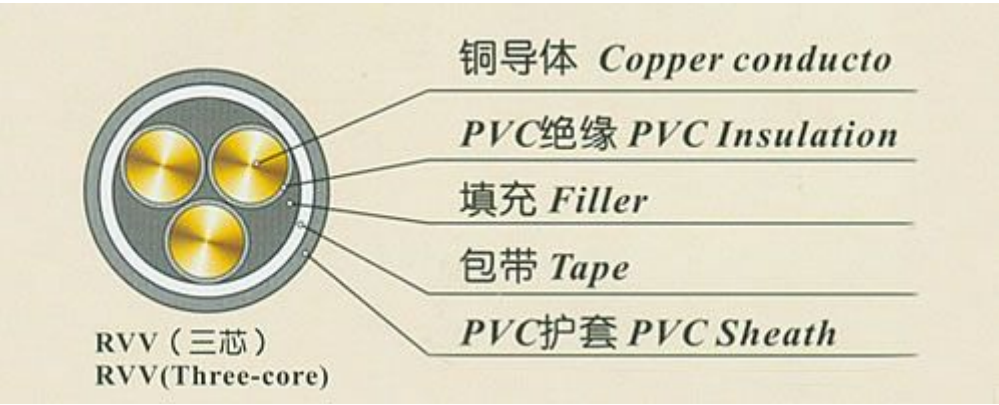
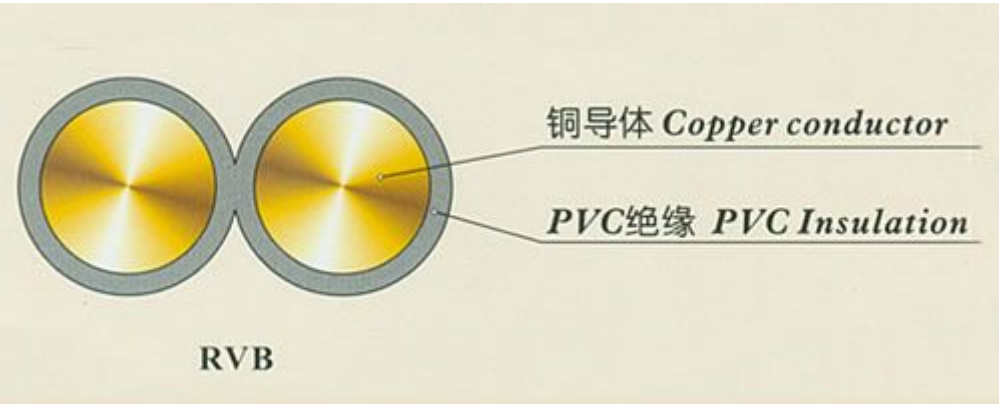
Type of Cable:

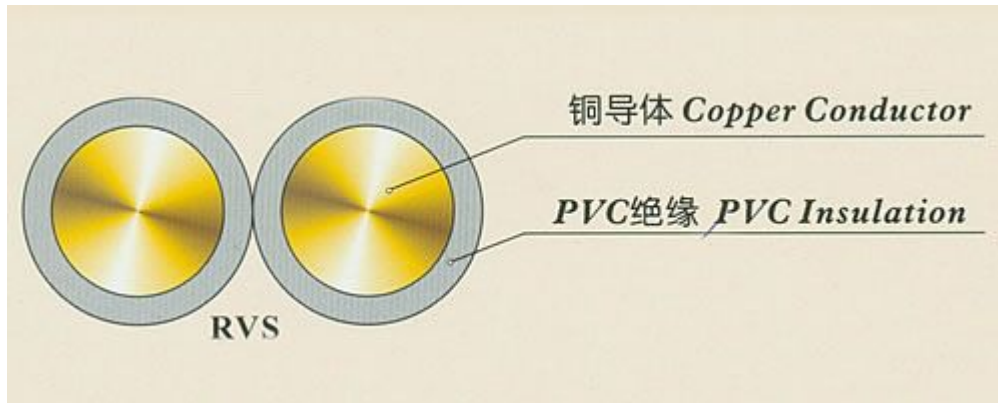
Type	Rated voltage V	No. of cores	Nominal cross-sectional area of conductor MM ²	Standards
227 IEC 01(BV)	450/750	1	1.5~400	GB5023-1997 IEC60227-1997
227 IEC 02(RV)	450/750	1	1.5~240	
227 IEC 05(BV)	300/500	1	0.5~1	
227 IEC 06(RV)	300/500	1	0.5~1	
227 IEC 07(BV-90)	300/500	1	0.5~2.5	
227 IEC 08(RV-90)	300/500	1	0.5~2.5	
227 IEC 42(RVB)	300/300	2	0.5~0.75	
227 IEC 52(RVV)	300/300	2,3	0.5~0.75	
227 IEC 53(RVV)	300/500	2,3~24 ¹⁾	0.75~6	
BV	300/500	1	0.75~1	JB8734-1998

BLV	450/750	1	2.5~630
BVR	450/750	1	2.5~240
BVV	300/500	1	0.75~10
BLVV	300/500	1	2.5~10
BVVB	300/500	2,3	0.75~10
BLVVB	300/500	2,3	2.5~10
RVS	300/300	2	0.5~0.75
RVP, RVP-90	300/300	1,2	0.08~6
RVVP	300/300	1,2~24 ¹⁾	0.3~6



Cable Structure:





2. Control cable

Plastic insulated control cable

Reference Standards:

This product is manufactured according to GB9330 and enterprise standards.

Application:

For system connection wire of control, signal, protection or measuring with rated voltage up to and including 450/750V

Operating Characteristics:

- Rated voltage U0/U:450/750V.
- Max. Permissible continuous operating temperature of the conductor:
 PVC insulated:70°C; XLPE insulated:90°C.
- Upon short circuit(Max. Duration time 5s)the Max. Temperature of conductor not higher than:
 XLPE insulated:250°C; PVC insulated:160°C.
- The ambient temperature under installation shall not below 0~C.
- Preferred Permissible bending radium:
 For non-armored cable,not less than 6 times of cable diameter;
 For armored or copper-tape-screened cable,not less than 12 times of cable diameter;
 For screened flexible cable,not less than 6 times of cable diameter.

Type	Rated voltage V	Nominal cross-sectional area of conductor MM ²							
		0.5	0.75	1.0	1.5	2.5	4	6	10
		No. of cores							

KVV KYJV KVVP KYJVP	450/750		2~61		2~14	2~10
KVVP2 KYJVP2			4~61		4~14	4~10
KVV22 KYJV22			7~61	4~61	4~14	4~10
KVV32 KYJV32			19~61	7~61	4~14	4~10
KVVR KYJVR			4~61			
KVVRP			4~61	4~48		

Type:

Technical Data:

1)Conductors have three species: First (Solid conductor) (A), Second for fixed installation (B) (Stranded conductor), and Third for moveable requirement (R) (stranded flexible conductor).

2)The structure and D.C.resistance.

Nominal, cross-section mm ²	Conductor Structure		D.C. resistance of conductor at 20°C (Ω /km) \leq	
	Species	No./Nominal, diameter of a signal Wire mm	Untinned wire	Tinned wire
0.5	3	16/0.20	39.0	40.1
0.75	1	1/0.97	24.5	24.8
0.75	2	7/0.37	24.5	24.8
0.75	3	24/0.20	26.0	26.7
1.0	1	1/1.13	18.1	18.2
1.0	2	7/0.43	18.1	18.2
1.0	3	32/0.20	19.5	20.0
1.5	1	1/1.38	12.1	12.2
1.5	2	7/0.52	12.1	12.2
1.5	3	30/0.25	13.3	13.7
2.5	1	1/1.78	7.41	7.56
2.5	2	7/0.68	7.41	7.56

2.5	3	50/0.25	7.98	8.21
4	1	1/2.25	4.61	4.70
4	2	7/0.85	4.61	4.70
6	1	1/2.76	3.08	3.11
6	2	7/1.04	3.08	3.11
10	2	7/1.35	1.83	1.84

3)The screen layer of cables shall be braided with copper wire or applied helically with copper tape.

Fluoroplastic insulated and sheathed control cable

Reference Standards:

This product is manufactured according to enterprise standard Q/320282 DCZ09-2001

Application:

This product applies for instruments connection or signal transmission of auto-control systems under higher or lower temperature or in various harsh environment in industrial or mining enterprises of metallurgy, electric power, oil, chemistry and so on, with excellent advantages of high or low temperature-resistant, acid-alkali-oil-and-water-proof, and fire-resisting.

Type and Name:

Type	Name
KFF	Fluoroplastic insulated and sheathed control cable
KFFP	Fluoroplastic insulated and sheathed copper wire braided common shielded control cable
KFFR	Fluoroplastic insulated and sheathed flexible control cable
KFFRP	Fluoroplastic insulated and sheathed-copper-wire braided common shielded flexible control cable

Symbol Meanings of Specification:

Item	Symbols	Meanings
Series	K	Control cable
Insulation	F	Fluoroplastic
Sheath	F	Fluoroplastic
Conductor Species	R	Flexible
Common shield	Omitted	Non-shielded
	P	Copper wire braided
	E	Tinned-Copper wire braided
Type	No. of cores x cross-section of conductor(mm ²)	(2~37) x (0.5~2.5)

Characteristics:

- 1、 Rated voltage(U_o/U) :450/750V.
- 2、 Permissible continuous Max. operating temperature:200℃
- 3、 Installation ambient temperature:-60℃ - +200℃.
- 4、 Recommended permissible bending radium not less than 6 time of cable diameter.

3. Bare conductor

Copper stranded wire

Application:

This product is suitable for electric transmission line overhead.

Type:

Type	Name	Cross-sectional area mm ²
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TJ	Copper stranded wire	16~400
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Technical Data:

Nominal cross-section mm ²	No./Nominal diameter of a signal Wire mm	Approx. overall diameter mm	D.C. resistance of conductor at 20°C (Ω/km) ≤	Approx. weight kg/km
16	7/1.70	5.10	1.159	143
25	7/2.14	6.42	0.735	226
35	7/2.52	7.56	0.528	314
50	7/3.00	9.00	0.371	445
70	19/2.14	10.70	0.263	618
95	19/2.52	12.60	0.197	852
120	19/2.80	14.00	0.154	1057
150	19/3.15	15.75	0.121	1339
185	37/2.52	17.64	0.100	1660
240	37/2.85	19.95	0.077	2123
300	37/3.15	21.70	0.064	2594
400	61/2.85	25.65	0.062	3502

Aluminum stranded wire and aluminum conductor steel-reinforced

Application:

The Aluminum Stranded wire and Aluminum Conductor Steel-reinforced apply for electric transmission line overhead.

Type:

Type	Name	Cross-sectional area	Standard
TJ	Aluminum stranded wire	16~800	GB1179-83
LGJ	Aluminum conductor steel-reinforced	10/2~800/100	
LGJF	Anticorrosive aluminum conductor steel-reinforced	10/2~800/100	
JL	Aluminum stranded wire	10~800	GB1179-1999
JLHA2、 JLHA1	Aluminum alloy stranded wire	16~800	
JL/G1A, JL/G1B, JL/B2A, JL/B2B, JL/G3A	Aluminum conductor steel-reinforced	16~800	
JL/G1AF, JL/G2AF, JL/G3AF	Anticorrosive aluminum conductor steel-reinforced	16~800	
JLHA2/G1A,	Aluminum alloy conductor steel-reinforced	16~800	

JLHA2/G1B, JLHA2/G3A			
JLHA1/G1A, JLHA1/G1B, JLHA1/G3A	Aluminum alloy conductor steel-reinforced	16~800	
JL/LHA2, JL/LHA1	Aluminum conductor aluminum alloy reinforced	16~800	
JL/LB1A	Aluminum conductor aluminum coated steel-reinforced	16~800	
JLHA2/LB1A, JLHA1/LB1A	Aluminum alloy conductor aluminum-coated steel-reinforced	16~800	
JG1A, JG1B, JG2A, JG3A	Steel stranded wire	4~63	
JLB1A, JLB1B, JLB2	Aluminum coated steel stranded wire	4~200	

4. Rubber cable type

Tough rubber insulated cables of rated voltages up to and including 450/750V

Reference Standards:

GB5013-1997、JB8735-1998

Application:

This product applies for home appliances, electric tools and other various movable electrical equipments of rated voltage up to and including 450/750V.

Type of Cable:

Type	Rated voltage V	Number of cores	Nominal cross-section mm ²
245IEC53(YZ)	300/500	2,3,4,5	0.75~2.5
245IEC57(YZW)	300/500	2,3,4,5	0.75~2.5
245IEC66(YCW)	450/750	1,2,3,4,5	1.5~25
245IEC81(YH)	-	1	16~95
YQ, YQW	300/300	2,3	0.3~0.5
YZ, YZW	300/500	2,3,4,5	4~6
		4	1.5~6
		6	0.75~6
YZB, YZWB	300/500	2,3,4,5,6	0.75~6
YC	450/750	1	1.5~400
		2	1.5~95
		3,4	1.5~150
		5	1.5~2.5

		4	2.5~150
YCW	450/750	2 3 4	35~95 120~150 2.5~150
RX	300/300	2~3	0.3~4
RXS	300/300	1	0.3~4
RXH	300/300	2~3	0.3~4

Flexible rubber-sheathed cable for mining purposes

Application:

The flexible rubber-sheathed cable for mining purposes is made for the application in various movable electrical appliance and excavators in mine.

Type and Name:

Type	Name	Application
UZ	Drill cables	For drills under well at A.C. Rated voltage up to and including 0.5kV
U	Movable rubber-sheathed flexible cables for mining purposes	For various movable electrical appliances under well at rated A.C. voltage up to and including 1kV

UP	Movable rubber-sheathed flexible cables with screen for mining purposes	For various movable electrical appliances under well at rated A.C.voltage up to and including 1kV
UC	Rubber-sheathed Flexible coalcutter cables	For coal cutters and excavators under well at rated A.C. voltage up to and including 1 kV
UCP	Rubber-sheathed Flexible coalcutter cables with screens	For coal cutters and excavators under well at rated A.C. voltage up to and including 1kV

Produce range of cable:

Type	Voltage grade	Nominal cross sectional area of main core mm ²	No. of cores		
			Main core	Earthing core	Control core
UZ	0.5	2.5,4	3	1	0
			3	1	1
U,UP	1	4	3	1	0
		6-70	3	1	1
UC, UCP	1	10	3	1	0
		16	3	1	2
		25-35	3	1	3

					0
		50	3	1	7
					0

Movable flexible cables with semiconducting screens for mining purposes

Application:

Mine movable cable with shield and rubber jacket is made for the power transmission and distribution of movable electrical under coal well.

Produce range of cable:

Type	Nominal cross sectional area of main core mm ²	No. of cores		
		Main core	Earthing core	Control core
UPQ	10~95	3	1	3

Coal cutter flexible cable with shield

Application:

Coal cutter flexible cable with shield and rubber jacker is made for the application in coal cutter and the like.

Produce range of cable:

Type	Nominal cross sectional area of main core mm ²	No. of cores		
		Main core	Earthing core	Control core
UCPQ	35~95	3	1	3

Flexible rubber sheathed cable for mining purposes with rated voltage 6kV

Application:

6kV mine flexible cable with rubber jacket is made for the application in the power transmission and distribution system,excavators in mine and hoist-transportators at A.C.
Rated voltage up to and including 6kV.

Produce range of cable:

Type	Main core		Earthing core	
	No. of cores	Nominal cross section	No. of cores	Nominal cross section

		mm ²		mm ²
UGF-6000	3	6	1	6
	3	10	1	10
	3	16	1	16
	3	25	1	16
	3	35	1	16

5. Power cable

Rated voltage 1KV to 35KV power cables with extruded insulation

Reference Standards:

The product is manufactured according to the standard of GB 12706 or IEC, BS, DIN and ICEA upon request.

Application:

The product is suitable for use in power distribution networks or fixed installations for industrial equipments with rated voltage up to and including 35kV.

Operating Characteristics:

1. ● XLPE Insulated Electrical Cable for rated power frequency voltage $U_0 / U: 3.6/6kV \sim 26/35kV$.
 - Max. Permissible continuous operating temperature of conductor: $90^{\circ}C$.
 - Max. Short-circuit temperature of conductor shall not exceed $250^{\circ}C$. (5s Max. Duration)
 - The ambient temperature under installation shall not be below $0^{\circ}C$
 - The bending radius of single-core cable shall not be less than 20 times of the cable diameter
The bending radius of three-core cable shall not be less than 15 times of the cable diameter

2. ● XLPE Insulated Electrical Cable for rated power frequency voltage $U_0 / U: 0.6/1kV$
 - Max. Permissible continuous operating temperature of conductor: $90^{\circ}C$
 - Max. Short-circuit temperature of the conductor shall not exceed $250^{\circ}C$ (5s maximum duration).
 - The ambient temperature under installation shall not be below $0^{\circ}C$
 - The bending radius of a cable shall not be less than 15 times of the cable diameter.

3. ● PVC Insulated Electrical Cable for rated power frequency voltage $U_0 / U: 0.6/1kV$
 - Max. permissible continuous operating temperature of conductor: $70^{\circ}C$
 - Max. short-circuit temperature of the conductor shall not exceed: $160^{\circ}C$ (5s maximum duration).
 - The ambient temperature under installation shall not be below $0^{\circ}C$
 - The bending radius of a cable shall not be less than 10 times of the cable diameter.

XLPE Insulated electrical cable for rated voltage 3.6/6kV ~26/35kV

Type of Cable:

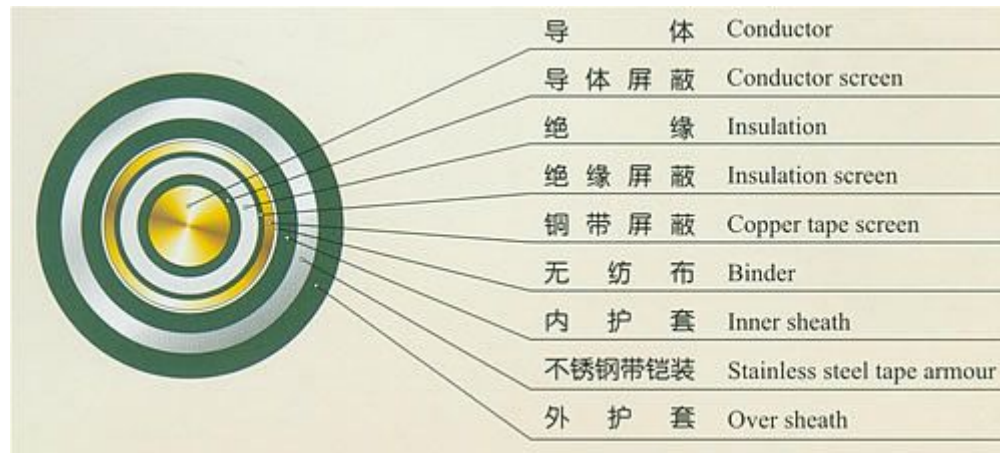
Type	Cores	Rated Voltage KV						
		3.6/6	6/6 6/10	8.7/10 8.7/15	12/30	18/20 18/30	21/35	26/35
		Nominal cross-section mm ²						
YJV YJLV	1	25-800	25-800	25-800	35-800	50-630	50-630	50-630
YJY YJLY	3	25-630	25-630	25-630	35-630	50-630	50-630	50-400
YJV22 YJLV22	1	25-800	25-800	25-800	35-800	50-630	50-630	50-630
YJV23 YJLV23	3	25-630	25-630	25-630	35-630	50-630	50-630	50-400
YJV32 YJLV32	1	25-800	25-800	25-800	35-800	50-630	50-630	50-630
YJV33 YJLV33	3	25-630	25-630	25-630	35-630	50-630	50-630	50-400

The armored single-core cables are used for D.C. System only. As for A.C. system, the magnetic isolation should be applied on the non-magnetical armored layer or non-magnetical materials should be used

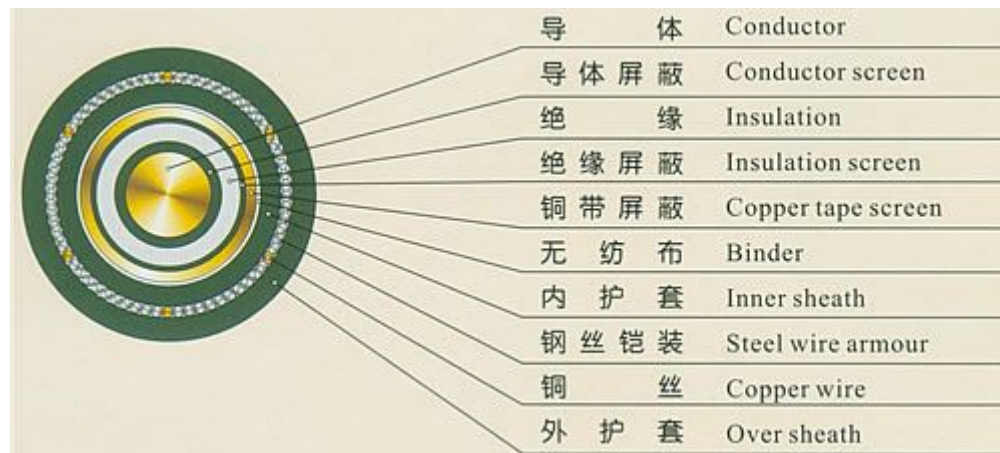
Structural drawing of cable: (Click picture to enlarge):



Single core XLPE insulation power cable for
rated voltage from 3.6/6kV to 26/35kV

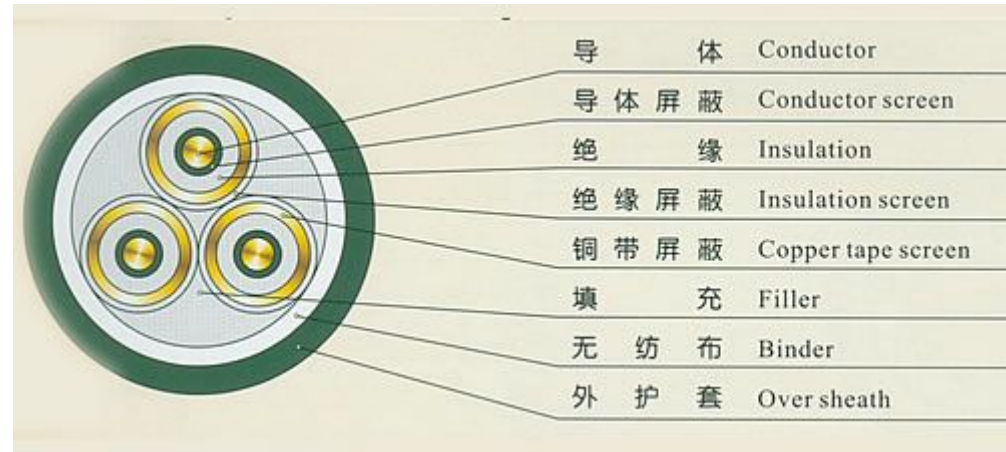


Single core XLPE insulation steel tape armored power
cable for rated voltage from 3.6/6kV to 25/35kV



Single core XLPE insulation steel wire armored power

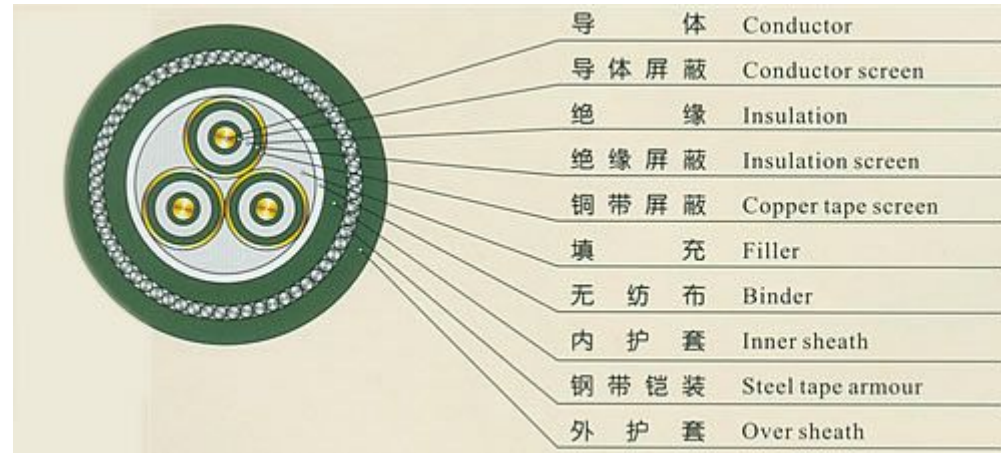
cable for rated voltage from 3.6/6kV to 25/35kV



Three-core XLPE insulation power cable for
rated voltage from 3.6/6kV to 26/35kV



Three-core XLPE insulation steel tape armored power
 cable for rated voltage from 3.6/6kV to 26/35kV



Three-core XLPE insulation steel wire armored power
 cable for rated voltage from 3.6/6kV to 26/35kV

XLPE Insulated electrical cable for rated voltage 0.6/1kV

Type and Specification:

Type		Cores	Nominal cross-section mm ²
Copper conductor	Aluminum conductor		

YJV YJY - YJV22 YJV23	- YJLY YJLY YJLV22 YJLV23	1*	1.5 - 800 2.5 - 800 10 - 800
YJV YJY - YJV22 YJV23 YJV32 YJV33	- YJLV YJLY YJLV22 YJLV23 YJLV32 YJLV33	2	1.5 - 300 2.5 - 300 2.5 - 300 10 - 300
YJV YJY - YJV22 YJV23 YJV32 YJV33	- YJLV YJLY YJLV22 YJLV23 YJLV32 YJLV33	3	1.5 - 400 2.5 - 400 2.5 - 400 10 - 400
YJV YJY - YJV22 YJV23 YJV32 YJV33	- YJLV YJLY YJLV22 YJLV23 YJLV32 YJLV33	4	1.5 - 400 2.5 - 400 2.5 - 400 10 - 400
YJV YJY - YJV22 YJV23 - YJV32 YJV33	- YJLV YJLY - YJLV22 YJLV23 YJLV32 YJLV33	3+1	1.5 - 400 4.0 - 400 1.5 - 400 4.0 - 400 10 - 400
YJV YJY - YJV22 YJV23	- YJLV YJLY -	5	1.5 - 400 2.5 - 400 1.5 - 400

- YJV32 YJV33	YJLV22 YJLV23 YJLV32 YJLV33		2.5 - 400 10 - 400
YJV YJY - YJV22 YJV23 - YJV32 YJV33	- YJLV YJLY - YJLV22 YJLV23 YJLV32 YJLV33	4+1	1.5 - 400 4.0 - 400 1.5 - 400 4.0 - 400 10 - 400
YJV YJY - YJV22 YJV23 - YJV32 YJV33	- YJLV YJLY - YJLV22 YJLV23 YJLV32 YJLV33	3+2	1.5 - 400 4.0 - 400 1.5 - 400 4.0 - 400 10 - 400

*The armored single-core cables are used for d.c. System only. As for a.c. System, non-magnetic armor material should be used, or magnetic isolation should be applied.

Structural drawing of cable:



2Cores YJV YJLV YJY YJLY



3Cores YJV22 YJLV22 YJV23 YJLV23



4Cores YJV22 YJLV22 YJV23 YJLV23

PVC Insulated electrical cable for rated voltage 0.6/1kv

Type and Specification:

Type		Cores	Nominal cross-section mm ²
Copper conductor	Aluminum conductor		
VV VY - VV22 VV23	- VLV VLY VLV22 VLV23	1	1.5 - 800 2.5 - 800 10 - 800
VV VY -	- VLV VLY	2	1.5 - 300 2.5 - 300

VV22 VV23 - VV32 W33	- VLV22 VLV23 VLV32 VLV3		4.0 - 300 4.0 - 300 10 - 300
VV VY - VV22 VV23 - VV32 VV33	- VLV VLY - VLV22 VLV23 VLV32 VLV3	3	1.5 - 400 2.5 - 400 4.0 - 400 4.0 - 400 10 - 400
VV VY - VV22 VV23 - VV32 VV33	- VLV VLY - VLV22 VLV23 VLV32 VLV3	4	1.5 - 400 2.5 - 400 4.0 - 400 4.0 - 400 10 - 400
VV VY - VV22 VV23 - VV32 VV33	- VLV VLY - VLV22 VLV23 VLV32 VLV3	3+1	1.5 - 400 4.0 - 400 4.0 - 400 4.0 - 400 10 - 400
VV VY VV22 VV23 VV32 VV33	- VLV VLY - VLV22 VLV23 VLV32 VLV3	5	1.5 - 400 2.5 - 400 4.0 - 400 4.0 - 400 10 - 400

VV VY - VV22 VV23 - VV32 VV33	- VLV VLY - VLV22 VLV23 VLV32 VLV3	4+1	1.5 - 400 4.0 - 400 4.0 - 400 4.0 - 400 10 - 400
VV VY - VV22 W23 - VV32 VV33	- VLV VLY - VLV22 VLV23 VLV32 VLV3	3+2	1.5 - 400 4.0 - 400 4.0 - 400 4.0 - 400 10 - 400

*The armored single-core cables are used for D.C. System only. As for A.C. System, nonmagnetic Armour material should be used, or magnetic isolation should be applied.

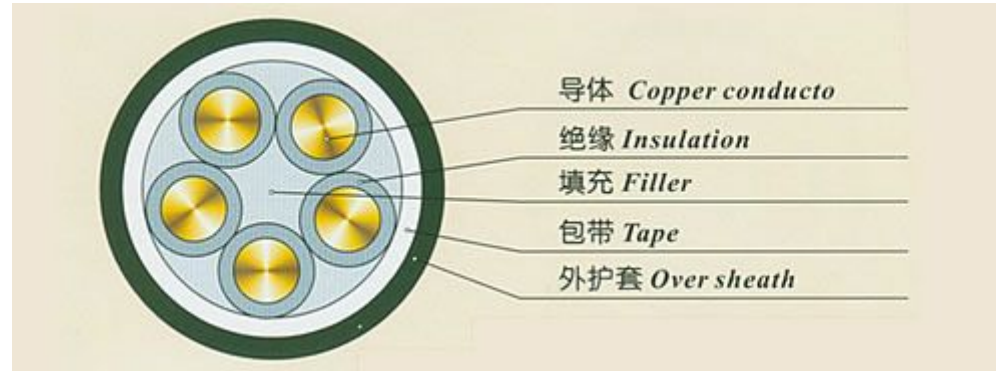
Structural drawing of cable:



2Cores VV VLV VY VLY



4Cores VV VLV VY VLY



5Cores VV VLV VY VLY

6. Aerial cable category

Aerial insulated cable for rated voltage 1kv, 10kv and 35kv

Introduction:

The products are manufactured by extruding a conductor screen layer, an insulated layer of rough-weather-adaptive XLP or rough-weather-adaptive black HD-PE or PVC, and an insulation screen layer over the compacted copper/ aluminum conductor (no conductor screen layer and insulation screen layer for cables of rated voltage 1 kV), with the advantage of simple construction, and excellent mechanical, physical and electrical property as well as fine performance of anti-creeping-discharge, rough-weather-adaptive and creepage proof. Compared with bare conductor, the products can be laid more closely to save the line gallery, and have less voltage-drop. Above all.the products installed reduce power accidents to insure lives safety.

Standard:

The products shall comply with the standards GB 12527-90 and GB 14049-93.

Applications:

The products fit for transmitting line and distributing line of rated volage 1kV, 10kV and 35kV in tall buildings, traveling development area and wooded tract.

Operating characteristics:

- 1、 The rated voltage of cable has three classes: a. 0.6/1kV b. 10kV c. 35kV。
- 2、 Continuous permissible operating temperature:
 - PVC Insulation:70°C
 - PE Insulation:70°C
 - HDPE Insulation:75°C
 - XLPE Insulation:90°C
- 3、 Max. Temperature of cable under short-circuit(5sec. Max. Duration)
 - PVC Insulation: 160°C
 - PE Insulation: 130°C
 - HDPE Insulation: 150°C
 - XLPE Insulation:250°C
- 4、 Laying temperature of cable not less than -20°C。
- 5、 Operating ambient temperature of cables:-40 ~ +40~C,Relative humidity in rainy season not less than 90%
- 6、 Permissible bending radius of cable:
 - cable for rated voltage up to and including 0.6/1kV;
 - bending radius not less than 4D for cable diameter <25mm
 - bending radius not less than 6D for cable diameter \geq 25mm
 - cable for rated voltage 10kV and 35kV;
 - single-core cable: $20(D+d) \pm 5\%$
 - multi-core cable: $15(D+d) \pm 5\%$

Note:D-Over all Diameter of cable

d-Over all Diameter of conductor

Type of cable:

Rated Voltage	Type	Name	Main Usage
0.6/1	JKV JKLV JKY JKLY JKYJ JKLYJ	Copper conductor, PVC insulated, aerial cable for rated voltage 0.6/1kV Aluminum conductor, PVC insulated, aerial cable for rated voltage 0.6/1kV Copper conductor, PE insulated, aerial cable for rated voltage 0.6/1kV Aluminum conductor, PE insulated, aerial cable for rated voltage 0.6/1kv Copper conductor, XLPE insulated, aerial cable for rated voltage 0.6/1kV Aluminum conductor, XLPE insulated, aerial cable for rated voltage 0.6/1kV	The cables fit for overhead fixed-installation, service line and so on.
10	JKLYJ/Q JKLY/Q JKLGYJ/Q	Aluminum conductor, XLPE thin-insulated,light aerial cable Aluminum conductor, XLPE thin-insulated,light aerial cable Aluminum and steel reinforced conductor, XLPE thin-insulated, light aerial cable	When the overhead fixed laid cables are laid, a certain distance between cables and trees should be taken into account.It is permissible that the cables continually touch the trees when the cables are operating.
10	JKYJ	Copper conductor, XLPE insulated, aerial cable	When the overhead fixed laid cables are laid, a certain

35	JKLYJ JKY JKLY JKLYJ/Q JKLGYJ	Aluminum conductor, XLPE insulated, aerial cable Copper conductor, PE insulated, aerial cable Aluminum conductor, PE insulated, aero cable Aluminum conductor, natural-color XLPE insulated, aerial cable Aluminum and steel reinforced conductor, XLPE thinly insulated, aerial cable	distance between cables and trees should be taken into account. It is permissible that the cables quickly touch the trees when the cables are operating.
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7. Fire wire and cable series

Standard:

Electrical performance products, like ordinary wire and cable, flame retardant, fire resistance in line with national standards GB/T18380-2001 (IEC60332: 1993), GB/T12666-1990 or national public safety industry standard GA306-2001 the requirements.

Use Occasions:

For a flame retardant, fire resistance, low smoke low halogen, low smoke zero halogen fire safety requirements, which are occasions, such as large-capacity power plants, nuclear power plants, subway, high-rise buildings, lots, and so densely populated.

Product name, type and use:

Name	Model	Level	Scope
Flame Retardant Series	ZR	IV A	<p>35kv and below of AC rated voltage plastic insulated flame retardant power cables, AC rated voltage 450/750V and below flame-retardant plastic insulated control cable and AC rated voltage 450/750V and below flame-retardant plastic insulated cables</p>
		IV B	
		IV C	
		I A	
		I B	
		IC	
		II A	
		II B	
		II C	
		III A	
		III B	
		III C	
		Fire Series	
I B			
II A			
II B			
III A			

		III B	
		IV A	
		IV B	

Flame-retardant performance level technical requirements:

Flame retardant grade \ Project		Char height			Technology Indicators	Smoke toxicity (Concentration) mg/L	Smoke density (Minimum light transmittance) %
		Test conditions					
		Volume of the sample non-metallic L/m	Temperature in fire °C	Time for fire min			
Flame I	I A	7.0	>815	40	≤2.5	≥12.4	≥80
	I B	3.5		20			
	I C	1.5		40			
Flame II	II A	7.0		40		≥60	
	II B	2.5		20			
	II C	1.5		40			
Flame III	III A	7.0	20	≥6.15	≥20		
	III B	3.5					
	III C	1.5					

Flame IV	IV A	7.0		40		-	-
	IV B	3.5					
	IV C	1.5					
Note: IV A、 IV B、 IV C Can be expressed as, respectively,A、 B、 C							

Fire resistance level and technical requirements:

Flame retardant grade \ Project		Fire-resistant properties				Smoke toxicity (Concentration) mg/L	Smoke density (Minimum light transmittance) %
		Test conditions			Technology Indicators		
		Sample applied voltage (U ₀ /U)/V	Temperature in fire °C	Time for fire min			
Flame I	I A	Voltage specified value of the product	950-1000	90	3A Fuse is not blown	≥12.4	≥80
	I B		750-800				
Flame II	II A		950-1000			≥60	
	II B		750-800				
Flame III	III A		950-1000			≥20	
	III B		750-800				
Flame IV	IV A		950-1000			-	
	IV B		750-800				

Note: IV A、IV B Can be expressed as, respectively,A、B

Prefabricated branch cable class

Rated voltage plastic insulated copper 0.6/1kV prefabricated branch cable

Products:

Rated voltage plastic insulated copper 0.6/1kV prefabricated branch cable can be widely used in residential, office buildings, hotels, hospitals, shopping malls, factories, and other power distribution systems. The main cable conductor, connector, extension cable conductor joint structure is reasonable, minimal contact resistance, thermal expansion and contraction are not affected. And has excellent shock resistance, good air tightness and water resistance, wet environment in the normal power supply, can also be laid in the open air and buried. Small area of floor space, is conducive to the efficient use of floor space, easy to install.

Products, the enterprise standard Q/320282GADI3, standard reference used GB12706 and JISC2810 standards.

Allow long-term working temperature of cable conductor is: XLPE insulated 90 °C; 70 °C PVC insulated

Allow short-circuit temperature of cable conductor: XLPE 250 °C, the duration of no more than 5 seconds.

PVC insulated 160 °C, the duration of no more than 5 seconds.

Flame retardant cable can effectively prevent the spread of flame; low smoke zero halogen cable does not produce toxic gases when burned, produces only a small amount of smoke; fire resistant cables in the 750-800 °C (or 950-1000 °C) under fire conditions, can be maintained Running 90min.

Cable Type, Name:

Model	Name
FZ-VV	Copper core PVC insulated PVC sheathed prefab branch cable
FZ-ZR-VV	Flame-retardant copper core PVC insulated PVC sheathed prefab branch cable
FZ-NH-VV	Copper core PVC insulated PVC sheathed fire resistance prefab branch cable
FZ-YJV	Copper core XLPE insulated PVC sheathed prefab branch cable
FZ-ZR-YJV	Copper core XLPE insulated PVC sheathed flame retardant prefabricated branch cable
FZ-NH-YJV	Copper core XLPE insulated PVC sheathed fire prefabricated branch cable
FZ-WL-ZR-YJE	PVC insulated copper sheathed halogen flame retardant polyolefin prefabricated branch cable
FZ-DL-NH-YJE	Copper conductor PVC insulated fire-resistant low smoke zero halogen polyolefin sheathed prefab branch cable
FZN-VV	Copper core PVC insulated twisted type prefabricated branch cable
FZN-ZR-VV	Copper conductor PVC insulated PVC sheathed flame retardant twisted type prefabricated branch cable
FZN-NH-VV	Copper core PVC insulated PVC sheathed fire twisted type prefabricated branch cable
FZN-YJV	Copper core XLPE insulated PVC sheathed twisted type prefabricated branch cable
FZN-ZR-YJV	Copper core XLPE insulated PVC sheathed flame retardant twisted type prefabricated branch cable
FZN-NH-YJV	Copper core XLPE insulated PVC sheathed fire twisted type prefabricated branch cable

FZN-WL-ZR-YJE	Copper core PVC insulation sheath halogen flame retardant polyolefin-based system for branch cable twisted
FZN-DL-NH-YJV	Copper core PVC insulated PVC sheathed low halogen fire on behalf of smoke twisted type prefabricated branch cable

Prefabricated branch cable trunk cable and feeder cable specifications:

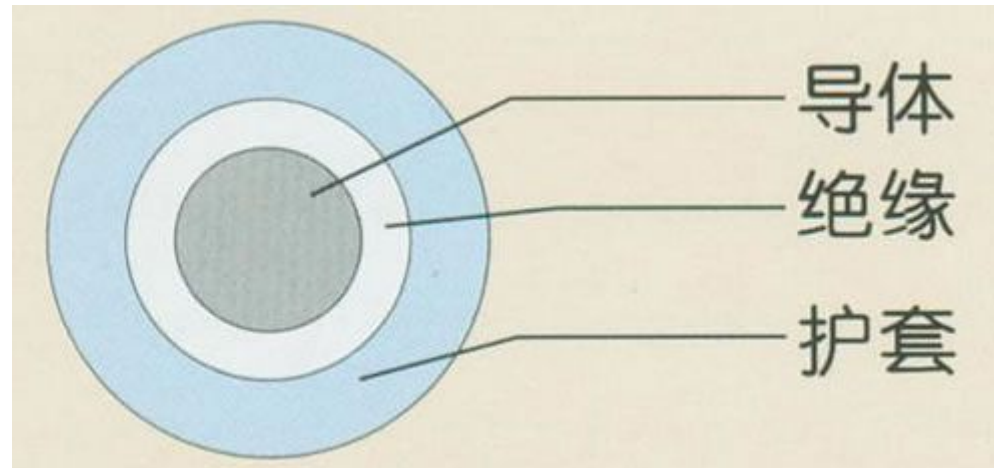
Trunk cable section (mm ²)	Feeder cable section (mm ²)													
	6	10	16	25	35	50	70	95	120	150	185	240	300	
10	6	10												
16	6	10	16											
25	6	10	16	25										
35	6	10	16	25	35									
50	6	10	16	25	35	50								
70	6	10	16	25	35	50	70							
95	6	10	16	25	35	50	70	95						
120	6	10	16	25	35	50	70	95	120					
150	6	10	16	25	35	50	70	95	120	150				
185	6	10	16	25	35	50	70	95	120	150	185			
240	6	10	16	25	35	50	70	95	120	150	185	240		
300	6	10	16	25	35	50	70	95	120	150	185	240	300	

400	6	10	16	25	35	50	70	95	120	150	185	240	300	400
500	6	10	16	25	35	50	70	95	120	150	185	240	300	400
630	6	10	16	25	35	50	70	95	120	150	185	240	300	400

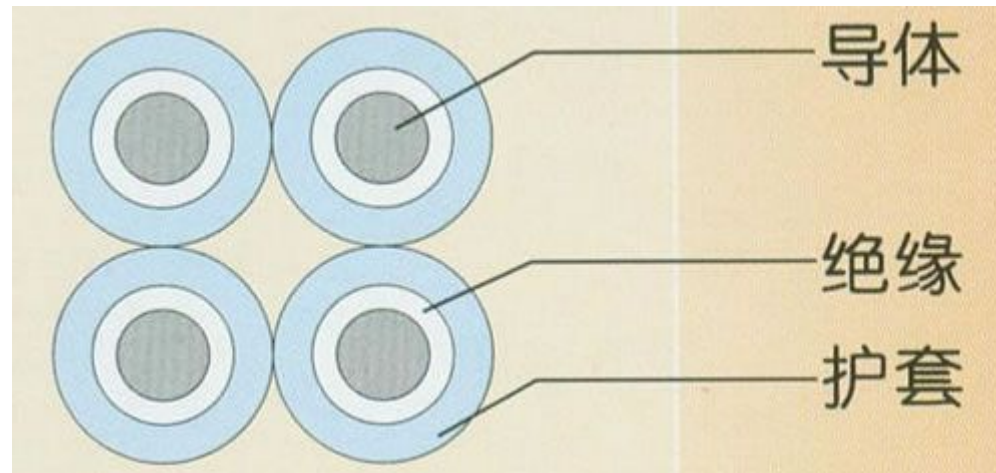
Prefabricated branch cable structure:

Standard trunk cables and extension cables are based on models with the corresponding insulation and sheath materials, with reference to IEC, GB, JIS and other standards made of low-voltage power cable. General Cable is a single trunk or multi-core twisted (two core five-core cable), Extension cable with single core cables. The structural characteristics are as follows:

1、Non-fire resistant cable structure

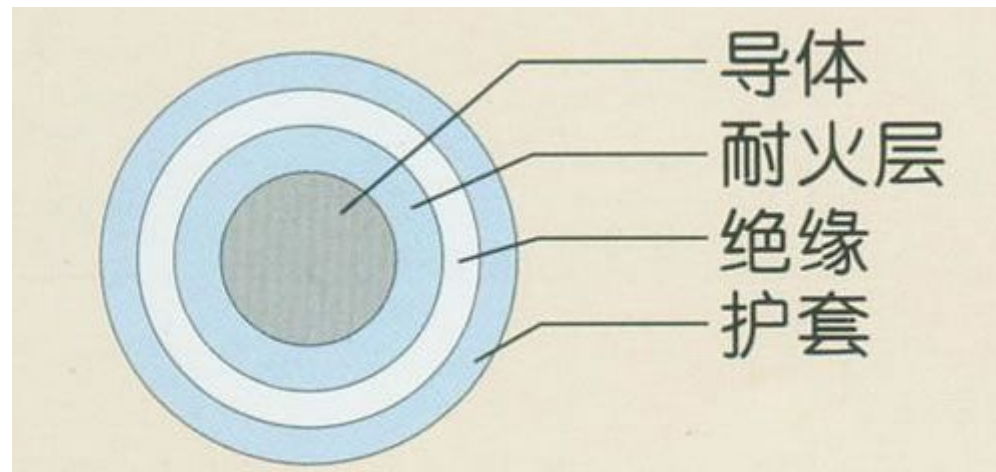


Single-core cable

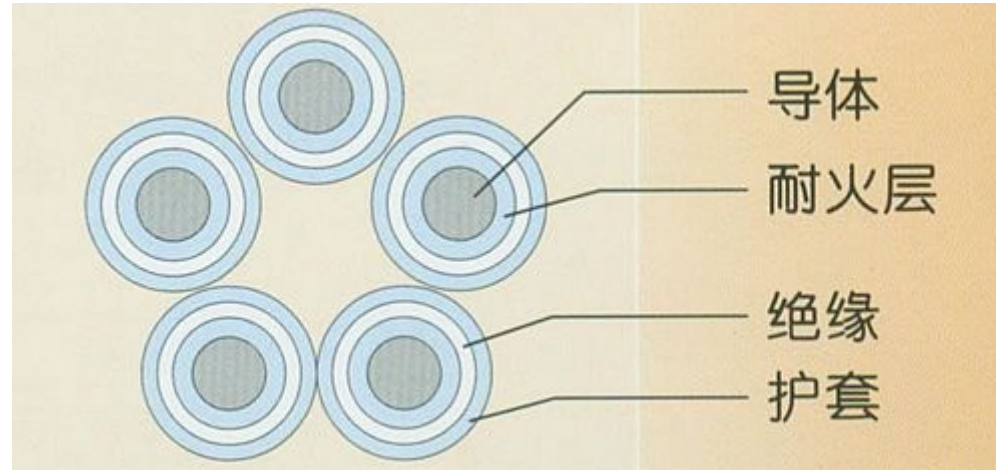


Four core twisted cable

2、Fire-resistant cable structure



Single-core cable



Five core twisted cable

3. The structure of the branch connector

Prefabricated branch cable connection part of the body using special PVC or synthetic materials, such as cable connections shown on the right branch of the body.

Trunk cable mm ²	Extension Cables mm ²	Reference dimensionmm			Schematic tap
		d1	d2	L	
10	~10	54	35	95	
16	~16				
25	~25				
35	~35				
50	~50	57	38	95	

70	~70				
95	~95				
120	~120	78	52	145	
150	~150				
185	~185				
240	~240	96	70	160	
300	~300				
400	~400				
500	~400	106	80	170	
630	~400				

Main technical performance prefabricated branch cable:

No.	Project	Performance requirements
1	Insulation	AC 3.5 kV/5min
2	Insulation resistance	$\geq 200M\Omega$
3	Branch joint resistance ratio	Branch joint resistance ratio $k_j \leq 1.2$
4	Short circuit test	After a short circuit ratio of rate of change of DC resistance $Y_j \leq 0.2$
5	Thermal cycling test	Determination of the value of 25 cycles: $\leq 75^\circ\text{C}$

		No. 26-125 cycles measured values , the temperature rise of less than 25 cycles measured value +8 °C		
6	Flame Retardant	Ignition off within 15 seconds		
7	Enhance the fitting	Tensile pull	24h, 2 times the weight does not place the	
		Insulation voltage	3.5kV/5min	
		Insulation resistance	≥200MQ	
8	Molded plastic	Room temperature	Tensile pull	≥10MPa
			Elongation	≥120%
		Heating	Tensile pull	Before heating 85%
			Elongation	Before heating 80%
		Oil	Tensile pull	Before heating 85%
			Elongation	Before heating 860%
		Cold-resistant	Test is not broken	
Heat distortion	Thickness reduction rate of less than 50%			