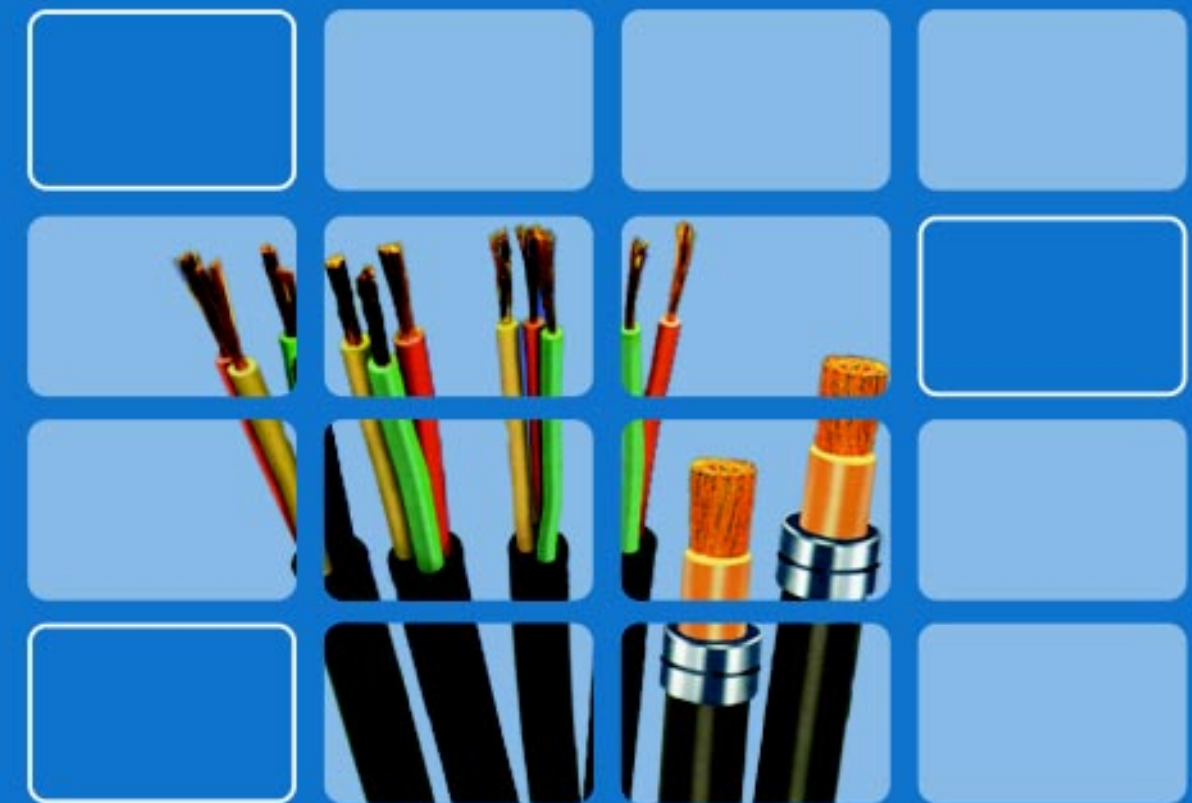




PVC INSULATED WIRE AND RUBBER CABLE



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YIFANG ELECTRIC GROUP INC



BRIEF INTRODUCTION

Zhengzhou Yifang Cable Co., Ltd. is mainly specialized in Wires & Cables, including designment, production and sales, Locating in western district of Zhengzhou, Henan Province, P. R. China. The total area of factory is more than 140 thousands square meters, and it is one of the many great manufacturers in China.

Its products are mainly covering Low, Medium, High Voltage (1KV to 220KV) XLPE Insulated Power Cable, PVC insulated Power Cable, Aerial-Bundle Cable (ABC cable), PVC Insulated Wires (Building Cable), Control Cable, Rubber Cable, Bare Conductor (ACSR, AAC, AAAC, BCC), Welding Cable, Galvanized Steel Wire (Stay wire), etc.

The products are complying with GB, IEC, BS, ASTM, etc. Besides, we have the capacity to design and produce all kinds of wires and cables according to your special requirements (supplying OEM Service).

In the past years, our products have been sold to many countries and regions, such as Algeria, Australia, Bahrain, Bolivia, Bangladesh, Brazil, Burma, Chile, Costa Rica, Cyprus, Egypt, Hongkong, Indonesia, Iran, Jamaica, Jordan, Kenya, Macao, Malaysia, Mexico, Nepal, Nigeria, Korea-North, Oman, Pakistan, Philippines, Russia, Singapore, Sri Lanka, Sudan, Tanzania, Thailand, Togo, Yemen, Vietnam, Zambia.

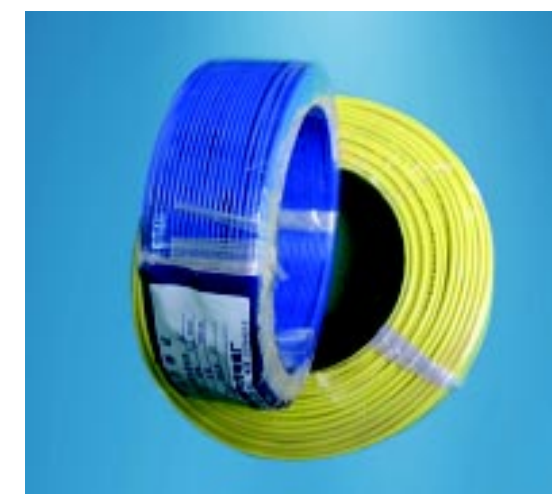
PVC Insulated Wire with Rated Voltage up to 450/750V

I . Range of Application

The PVC Insulated Wire belongs to the series of laying wires, which are mainly suitable for laying at the fixed places. They are widely used as connectors of driving, lighting, electric equipments, instrument and telecommunication equipments with rated voltage up to 450/750V. Part of the plastic wires are used at the equipment with AC rated voltage up to 300/300V.

II. Standard

The products adopt the standard GB5023.1-7-1997 《PVC Insulated Wire with Rated Voltage up to 450/750V》, JB8734.1-5-1998 《PVC Insulated Cable, Wire and Flexible Wire with Rated Voltage up to 450/750V》 and Q/ZEL02-2002 《Plastic Insulated Wire and Cable》. Among them, GB5023.1-7-1997 is identical with IEC227, and the types are the same as the stipulation of the IEC, technical specification is just the same, and more we have extended the range of the types to be fit for the requirement of the consumers. JB8374.1-5-1998 and Q/ZEL02-2002 are the complementary content of the standard GB5023.1-7-1997, and the standard Q/ZEL02-2002 is replenished to meet the requirement of consumers.





III. Type Name and Requirement for Using

Type	Name	Laying Site and Requirements	Long-time Permissible Working Temperature of Conductor(°C)
227IEC01/05 BV BLV	Copper Conductor,PVC Insulated Wire	Fixed laid in the circumstance of indoor, conduit etc.	70
	Aluminium Conductor,PVC Insulated Wire		
227IEC 07 BV-90	Heat Resistant Copper Conductor, PVC Insulated Wire at 90°C	Fixed laid in the circumstance of high temperature environment and can be laid indoor, conduit etc.	90
BVR	Copper Conductor,PVC Insulated Flexible Wire	Fixed laid where flexibility is required.	70
227-IEC10 BVV	Copper Conductor PVC Insulated and PVC Sheathed Round Wire	Fixed laid where high mechanical protection and moisture are required. They can be laid in the air or underground.	70
BLVV	Aluminium Conductor PVC Insulated and PVC Sheathed Round Wire		
BVVVB	Copper Conductor PVC Insulated and PVC Sheathed Flat Wire		
BLVVVB	Aluminium Conductor PVC Insulated and PVC Sheathed Flat Wire		
227IEC 02 RV227 IEC 06 RV	Copper Conductor,PVC Insulated Flexible Connector	Mainly used at middle-light type movable equipments, instrument and meters, household appliances, power and lighting and the places where flexibility is required.	70
227IEC 42 RVB	Copper Conductor,PVC Insulated Flat Flexible Connector		
RVS	Copper Conductor,PVC Insulated Flexible Twisting Connector		
227IEC52 RVV 227IEC53 RVV	Copper Conductor PVC Insulated and PVC Sheathed Round Flexible Connector(Light and Common Type)		

TABEL 1 227 IEC 05 BV 300/500V

Nominal Area mm ²	No. & Wire Dia. mm	Nominal Thickness of Insulation mm	Max. Overall Dia. mm	Resistance at 20°C± Ohm/km	Min. Insulation Resistance at 70°C Mohm/km	Total Weight kg/km
0.5	1/0.8	0.6	2.4	36	0.015	8.1
0.75	1/0.97	0.6	2.6	24.5	0.012	10.6
0.75	7/0.37	0.6	2.8	24.5	0.012	12.0
1	1/1.13	0.6	2.8	18.1	0.011	13.2
1	7/0.43	0.6	3.0	18.1	0.011	15.0

TABEL 2 227IEC 01 BV BLV 450/750V

Nominal Area mm ²	No. & Wire Dia. mm	Nominal Thickness of Insulation mm	Max. Overall Dia. mm	Resistance at 20°C± Ohm/km		Min. Insulation Resistance at 70°C Mohm/km	Total Weight kg/km	
				Cu	Al		Cu	Al
1.5	1/1.38	0.7	3.3	12.1	*	0.011	19.2	*
1.5	7/0.52	0.7	3.5	12.1	*	0.01	20.6	*
2.5	1/1.78	0.8	3.9	7.41	11.8	0.01	30.8	15
2.5	7/0.68	0.8	4.2	7.41	11.8	0.01	34.8	17
4	1/2.25	0.8	4.4	4.61	7.39	0.0085	45.5	21
4	7/0.85	0.8	4.4	4.61	7.39	0.0085	47.1	22
6	1/2.76	0.8	4.9	3.08	4.91	0.007	65	29
6	7/1.04	0.8	5.4	3.08	4.91	0.007	71.2	29
10	7/1.35	1.0	7.0	1.83	3.08	0.0065	110	52
16	7/1.70	1.0	8.0	1.15	1.91	0.005	170	70
25	7/2.14	1.2	10.0	0.727	1.2	0.005	270	110
35	7/2.52	1.2	11.5	0.524	0.868	0.004	364	150
50	19/1.78	1.4	13.0	0.387	0.641	0.0045	500	200
70	19/2.14	1.4	15.0	0.268	0.443	0.0035	688	269
95	19/2.52	1.6	17.5	0.193	0.32	0.0035	953	360
120	37/2.03	1.6	19.0	0.153	0.253	0.0032	1168	449
150	37/2.25	1.8	21.0	0.124	0.206	0.0032	1466	551
185	37/2.52	2.0	32.5	0.099	0.164	0.0032	1808	668



TABLE 3 BVV 450/750V

Nominal Area mm ²	Number of core × No./Dia. mm	Max.Overall Dia. mm	Weight kg/km
1 × 0.75	1 × 1/0.97	4.3	23
1 × 1.0	1 × 1/1.13	4.5	26.4
1 × 1.5	1 × 1/1.38	4.9	34.6
1 × 1.5	1 × 7/0.52	5.2	36.5
1 × 2.5	1 × 1/0.85	5.8	46.4
1 × 4	1 × 1/2.25	6.4	65.9
1 × 4	1 × 7/0.85	6.8	73.7
1 × 6	1 × 1/2.76	7	91.6
1 × 10	1 × 7/1.35	8.8	152
2 × 1.5	2 × 1/1.38	9.8	109
2 × 1.5	2 × 7/0.52	10.5	123
2 × 2.5	2 × 1/1.78	11.5	157
2 × 2.5	2 × 7/0.68	12	172
2 × 4	2 × 1/2.25	12.5	205
2 × 4	2 × 7/0.85	13	222
2 × 6	2 × 1/2.76	13.5	265
2 × 6	2 × 7/1.04	14.5	286
2 × 10	2 × 7/1.35	18	471
3 × 1.5	3 × 1/1.38	10.5	136
3 × 1.5	3 × 7/0.52	11	146
3 × 2.5	3 × 1/1.78	12	190
3 × 4	3 × 7/0.68	12.5	207
3 × 4	3 × 1/2.25	13	252
3 × 6	3 × 7/0.85	14	272
3 × 6	3 × 1/2.76	14.5	344
4 × 1.5	4 × 1/1.38	11.5	164
4 × 1.5	4 × 7/0.52	12	174
4 × 2.5	4 × 7/0.68	13.5	252
4 × 4	4 × 1/2.25	14.5	321
4 × 4	4 × 7/0.85	15.5	346
4 × 6	4 × 1/1.04	17.5	470
4 × 6	4 × 7/2.76	16	439
4 × 6	4 × 1/1.04	17.5	470
5 × 1.5	5 × 1/1.38	12	192
5 × 1.5	5 × 7/0.52	12.5	205
5 × 2.5	5 × 1/1.78	14	272
5 × 2.5	5 × 7/0.68	14.5	292
5 × 4	5 × 1/2.25	16	379
5 × 4	5 × 7/0.85	17	418
5 × 6	5 × 1/2.76	17.5	518
5 × 6	5 × 7/1.04	18.5	550

TABLE 4 227IEC07 (BV-90)

Nominal Area mm ²	No. & Wire Dia. mm	Nominal Thickness of Insulation mm	Max. Overall Dia. mm	Resistance at 20℃ ± Ohm/km	Min. Insulation Resistance at 70℃ Mohm/km	Total Weight kg/km
0.5	1/0.80	0.7	2.4	36	0.015	8.1
0.75	1/0.97	0.7	2.6	24.5	0.013	10.6
1	1/1.13	0.7	2.8	18.1	0.012	14
1.5	1/1.38	0.7	3.3	12.1	0.011	19
2.5	1/1.78	0.8	3.9	7.41	0.009	30.5

TABLE 5 BVVB BLVVB 300/500V

No. of core × Nominal Area mm ²	No. & Wire Dia. mm	Nominal Thickness of Insulation mm	Nominal Thickness of Insulation mm	Max. Overall Dia. mm	Resistance at 20℃ ± Ohm/km		Min. Insulation Resistance at 70℃ Mohm/km	Total Weight kg/km	
					Cu	Al		Cu	Al
2 × 0.75	1/0.97	0.6	0.9	4.6 × 7.1	24.5	*	0.012	40	*
2 × 1.0	1/1.13	0.6	0.9	4.8 × 7.4			0.012	51	18.1
2 × 1.5	1/1.38	0.7	0.9	5.4 × 8.4	12.1	*	0.011	55	*
2 × 2.5	1/1.78	0.8	1.0	6.2 × 9.8	7.41	11.8	0.01	80	48
2 × 4	1/2.25	0.8	1.0	6.8 × 11.0	4.61	7.39	0.0085	110	72
2 × 6	1/2.76	0.8	1.1	7.4 × 12.0	3.08	4.91	0.007	150	83
2 × 10	7/1.35	1.0	1.2	9.6 × 16.0	1.83	3.08	0.0065	280	145
3 × 0.75	1/0.97	0.6	0.9	4.6 × 9.6	24.5	*	0.012	56	*
3 × 1.5	1/1.38	0.7	0.9	5.4 × 11.5	12.1	*	0.011	82	*
3 × 2.5	1/1.78	0.8	1.0	6.2 × 13.5	7.41	11.8	0.01	120	74
3 × 4	1/2.25	0.8	1.1	7.0 × 15.0	4.61	7.39	0.0085	175	100
3 × 6	1/2.76	0.8	1.1	7.4 × 17.0	3.08	4.91	0.007	225	120
3 × 10	7/1.35	1.0	1.2	9.6 × 22.5	1.83	3.08	0.0065	420	231



TABLE 6 ZR-BVR 450/750V BVR 450/750V

Nominal Area mm ²	No. & Wire Dia. mm	Nominal Thickness of Insulation mm	Max. Overall Dia. mm	Resistance at 20℃ ± Ohm/km	Min. Insulation Resistance at 70℃ Mohm/km	Total Weight kg/km
2.5	19/0.41	0.8	4.2	7.41	0.011	33
4	19/0.52	0.8	4.8	4.61	0.009	48
6	19/0.64	0.8	5.6	3.08	0.0084	68
10	49/0.52	1.0	7.6	1.83	0.0072	115
16	49/0.64	1.0	8.8	1.15	0.0062	176
25	98/0.58	1.2	11.0	0.727	0.0058	272
35	133/0.58	1.2	12.5	0.524	0.0052	384
50	133/0.68	1.4	14.5	0.387	0.0051	510
70	189/0.68	1.4	16.5	0.268	0.0045	714
95	259/0.68	1.6	19.5	0.139	0.0035	965
120	259/0.76	1.6	22.0	0.153	0.0032	1210
150	259/0.85	1.8	25.0	0.124	0.0032	1510

TABLE 7 RV 300/500V

Nominal Area mm ²	No. & Wire Dia. mm	Thickness of Insulation mm	Max. Overall Dia. mm	Resistance at 20℃ ± Ohm/km	Min. Insulation Resistance at 70℃ Mohm/km	Total Weight kg/km
0.3	16/0.15	0.6	2.3	69.2	0.016	5.9
0.4	23/0.15	0.6	2.5	48.2	0.014	7.4
0.5	16/0.20	0.6	2.6	39	0.013	8.5
0.75	24/0.20	0.6	2.8	26	0.011	13
1	32/0.20	0.6	3	19.5	0.01	16



TABLE 8 RVB 300/300V

No. of core × Nominal Area mm ²	No. & Wire Dia. mm	Thickness of Insulation mm	Max. Overall Dia. mm	Resistance at 20℃ ± Ohm/km	Min. Insulation Resistance at 70℃ Mohm/km	Total Weight kg/km
2 × 0.3	16/0.15	0.6	2.3 × 4.3	69.2	0.016	1.2
2 × 0.4	23/0.15	0.6	2.5 × 4.6	48.2	0.014	1.5
2 × 0.5	28/0.15	0.8	3.0 × 6.0	39	0.016	2.1
2 × 0.75	42/0.15	0.8	3.2 × 6.4	26	0.014	2.7
2 × 1	32/0.20	0.8	3.4 × 6.6	19.5	0.012	3.3
2 × 1.5	30/0.25	0.8	3.8 × 7.2	13.3	0.010	4.5

TABLE 9 RVV 300/300V

No. of core × Nominal Area mm ²	No. & Wire Dia. mm	Thickness of Insulation mm	Thickness of sheath mm	Overall Dia. mm		Resistance at 20℃ ± Ohm/km	Min. Insulation Resistance at 70℃ Mohm/km
				Max.	Min.		
2 × 0.5	16/0.2	0.5	0.6	4.8	6.2	39	40.1
2 × 0.5	16/0.2	0.5	0.6	3.0 × 6.0	3.8 × 6.0	39	40.1
2 × 0.75	24/0.2	0.5	0.6	5.2	6.6	26	26.7
2 × 0.75	24/0.2	0.5	0.6	3.2 × 5.2	3.9 × 6.4	26	26.7
3 × 0.5	16/0.2	0.5	0.6	5.0	6.2	39	40.1
3 × 0.75	24/0.2	0.5	0.6	5.4	6.8	26	26.7

TABLE 10 RVS 300/300V

No. of core × Nominal Area mm ²	No. & Wire Dia. mm	Thickness of Insulation mm	Max. Overall Dia. mm	Resistance at 20℃ ± Ohm/km	Min. Insulation Resistance at 70℃ Mohm/km	Total Weight kg/km
2 × 0.3	16/0.15	0.6	4.3	69.2	0.016	1.2
2 × 0.4	23/0.15	0.6	4.6	48.2	0.014	1.5
2 × 0.5	28/0.15	0.6	5.8	39	0.016	1.8
2 × 0.75	42/0.15	0.8	6.2	26	0.014	2.7
2 × 1.0	32/0.20	0.8	6.8	19.5	0.010	3.5
2 × 1.5	30/0.25	0.8	7.4	13.3	0.010	4.6

RUBBER SHEATH CABLE

General Rubber Sheath Cable (GB5013-1997,JB)(GB5013-1997,JB8735-1998)

1. Service Conditions

This product is suitable for A.C voltage 450/750V or below domestic appliances, power-operated tools and various portable electric Equipments.



2. Performance Characteristics

- 1) YZ model rated voltage U0/U is 300/500V, YC model is 450/750V.
- 2) Long time allow working temperature of wire core is not more than 60°C.
- 3) W model cable has the property of durability, so it is suitable for outdoor work touching oil pollution.
- 4) ZR model cable has the property of fire-resistance.

3. Model Name and Usage (See table)

Table 1

Model	Name	Main Usage
YQ.YQW	Light Model Rubber Sheath Flexible	Used for light portable electric equipment and tools
YZ.YZW	Middle Model Rubber Sheath Flexible Cables	Used for various portable electric equipment and tools
YC.YCW	Heavy Model Rubber Sheath Flexible Cable	Used for various portable electric equipment which can bear larger mechanical force effect

4. Size Weight and Technical Date (See Table 2-4)

300/300V YQ, YQW Light Model

Table 2

Cores × Nominal Section (mm ²)	Conductive core(mm)	Average Outer Dia(mm ²)		20°C Conductor Resistance ≡ (Ωkm)		Reference Weight(kg/km)	
	Number/Diameter of core	Minimum	Maximum Limit	Copper core	Tinning Copper core	YQ	YQW
2 × 0.3	16/0.15	4.6	6.6	69.2	71.2	30	31.5
2 × 0.5	28/0.15	5.0	7.2	39.0	40.1	43	45.5
3 × 0.3	16/0.15	4.8	7.0	69.2	71.2	36	38.1
3 × 0.5	28/0.15	5.2	7.6	39.0	40.1	74	77.0

300/500V YZ, YZW Medium Model

Table 3

Cores × Nominal Section (mm ²)	Conductive core(mm)	Average Outer Dia(mm ²)		20°C Conductor Resistance ≡ (Ωkm)		Reference Weight(kg/km)	
	Number/Diameter of core	Minimum	Maximum Limit	Copper core	Tinning Copper core	YQ	YQW
2 × 0.75	24 × 0.20	6.0	8.2	26.0	26.7		
2 × 1	32 × 0.20	6.4	8.8	19.5	20.0	81.7	89.6
2 × 1.5	30 × 0.25	8.0	10.5	13.3	13.7		
2 × 2.5	49 × 0.25	9.4	12.5	7.98	8.21	227.1	242.6
2 × 4	56 × 0.30	11.0	14.0	5.0	5.09		
2 × 6	84 × 0.30	12.5	17.0	3.3	3.39	366.0	394.5
3 × 0.75	24 × 0.20	6.6	8.8	26.0	26.7		
3 × 1	32 × 0.20	6.8	9.2	19.5	20.0	97.4	105.0
3 × 1.5	30 × 0.25	8.4	11.0	13.3	13.7		
3 × 2.5	49 × 0.25	10.0	13.0	8.0	8.21	205.1	219.2
3 × 4	56 × 0.30	11.5	14.5	5.0	5.09		
3 × 6	84 × 0.30	13.0	18.0	3.3	3.39	452.5	497.7
4 × 0.75	24 × 0.20	7.2	9.6	26.0	26.7		
4 × 1	32 × 0.20	7.6	10.0	19.5	20.0	117.1	125.2
4 × 1.5	30 × 0.25	9.4	12.5	13.3	13.7		
4 × 2.5	49 × 0.25	11.0	14.0	8.0	8.21	255.2	270.9
4 × 4	56 × 0.30	13.0	16.5	5.0	5.09		
4 × 6	84 × 0.30	14.5	20.0	3.3	3.39	564.0	594.0
3 × 1.5+1 × 1.0	30/0.25+32/0.20	9.4	12.0	13.3	13.7	170.1	181.9
3 × 2.5+1 × 1.5	49/0.25+30/0.25	11.0	14.0	8.0	8.21	246.8	262.9
3 × 4+1 × 2.5	56/0.30+49/0.25	13.0	16.0	5.0	5.09	359.1	380.2
3 × 6+1 × 4	84/0.30+56/0.30	14.5	19.5	3.3	3.39	542.1	572.5
5 × 0.75	24/0.20	8.0	11.0	26.0	26.7	127.1	136.8
5 × 1	32/0.20	8.4	11.5	19.5	20.0	144.3	154.5
5 × 1.5	30/0.25	10.0	13.5	13.3	13.7	210.5	223.6
5 × 2.5	49/0.25	12.5	15.5	8.0	8.21	304.3	322.4
5 × 4	56/0.30	14.5	18.0	5.0	5.09	441.8	464.5
5 × 6	84/0.30	16.5	22.5	3.3	3.39	687.5	724.0



450/750V YC YCW Heavy Model

Table 4

Cores × Nominal Section (mm ²)	Conductive core(mm) Number/Diameter of core	Average Outer Dia(mm ²)		20℃ Conductor Resistance ≅ (Ωkm)		Reference Weight(kg/km)	
		Minimum	Maximum Limit	Copper core	Tinning Copper core	YQ	YQW
1 × 1.5	30/0.25	5.6	7.2	13.3	13.7	51.9	57.0
1 × 2.5	49/0.25	6.4	8.0	8.0	8.2	73.7	79.5
1 × 4	56/0.30	7.2	9.0	5.0	5.09	110.5	118.7
1 × 6	84/0.30	8.0	11.0	3.30	3.39	132.0	167.3
1 × 10	84/0.40	9.8	13.0	1.91	1.95	220.6	234.8
1 × 16	126/0.40	11.0	14.5	1.21	1.24	295.1	311.6
1 × 25	196/0.40	12.5	16.5	0.780	0.795	425.6	466.2
1 × 35	276/0.40	14.3	17.9	0.554	0.565	584.0	591.0
1 × 50	396/0.40	16.5	21.0	0.386	0.393	758.4	788.4
1 × 70	360/0.50	18.5	24.0	0.272	0.277	1034.1	1073.7
1 × 95	475/0.50	21.0	26.0	0.206	0.210	1324.7	1369.3
1 × 120	608/0.50	23.0	28.5	0.161	0.164	1593.9	1646.3
1 × 150	756/0.50	25.0	32.0	0.129	0.132	1971.6	2063.7
1 × 195	925/0.50	27.5	34.5	0.160	0.108	2425.6	2498.0
1 × 240	1221/0.50	30.5	38.0	0.0801	0.0817	3081.3	3166.2
1 × 300	1525/0.50	33.5	41.5	0.0641	0.0654	3730.7	3825.2
1 × 400	2013/0.50	37.5	46.5	0.0486	0.0495	4934.0	5048.2
2 × 1.5	30/0.25	9.0	11.5	13.30	13.7	132.0	146.6
2 × 2.5	49/0.25	10.5	13.5	7.98	8.21	203.6	223.9
2 × 4	56/0.30	12.0	15.0	4.95	5.09	280.2	305.6
2 × 6	84/0.30	13.5	18.5	3.30	3.39	412.2	448.2
2 × 10	84/0.40	18.5	24.0	1.91	1.95	669.1	732.8
2 × 16	126/0.40	21.0	27.5	1.21	1.24	906.6	988.5
2 × 25	56/0.30	24.5	31.5	0.78	0.8	1144.3	1229.4
2 × 4	56/0.30	12.0	15.0	4.95	5.09	280.2	305.6
2 × 6	84/0.30	13.5	18.5	3.30	1.95	412.2	448.2

Table 4

Cores × Nominal Section (mm ²)	Conductive core(mm) Number/Diameter of core	Average Outer Dia(mm ²)		20℃ Conductor Resistance ≅ (Ωkm)		Reference Weight(kg/km)	
		Minimum	Maximum Limit	Copper core	Tinning Copper core	YQ	YQW
2 × 10	84/0.40	18.5	24.0	1.91	3.39	669.1	732.8
2 × 16	126/0.40	21.0	27.5	1.21	1.95	906.6	988.5
2 × 25	196/0.40	24.5	31.5	0.78	1.24	1144.3	1229.4
2 × 35	276/0.40	27.5	35.5	0.554	0.795	1505.5	1610.4
2 × 50	396/0.40	32	41	0.386	0.565	2464.2	2655.7
2 × 70	360/0.50	36	46	0.272	0.393	3254.8	3484.3
2 × 95	475/0.50	40.5	50.5	0.206	0.277	4144.3	4423.0
3 × 1.5	30/0.25	9.6	12.5	13.3	0.21	156.0	171.0
3 × 2.5	49/0.25	11.5	14.5	7.98	13.7	246.1	266.9
3 × 4	56/0.30	13	16	4.95	8.21	305.6	325.2
3 × 6	84/0.30	14.1	18	3.3	3.39	381.0	389.0
3 × 10	84/0.40	20	25.5	1.91	1.95	822.3	895.6
3 × 16	126/0.40	22.5	29.5	1.21	1.24	1075.8	1152.8
3 × 25	196/0.40	26.5	34	0.78	0.795	1514.3	1725.4
3 × 35	276/0.40	29.5	38	0.554	0.565	789.3	1956.0
3 × 50	396/0.40	34.5	43.5	0.386	0.393	2880.3	3057.8
3 × 70	360/0.50	38.5	49.5	0.272	0.3	3879.3	4109.2
3 × 95	475/0.50	44.0	54.0	0.206	0.21	4974.5	5250.8
3 × 120	608/0.50	48.5	59.0	0.161	0.164	5933.3	6253.3
3 × 150	756/0.50	53.0	66.5	0.129	0.132	7343.4	7740.9
4 × 1.5	30/0.25	10.5	15.5	13.3	13.7	188.6	205.6
4 × 2.5	49/0.25	12.5	15.5	7.98	8.21	300.5	323.7
4 × 4	56/0.30	14.5	18.0	4.95	5.09	438.4	469.5
4 × 6	84/0.30	16.5	22.0	3.30	3.39	643.2	686.0
4 × 10	84/0.40	21.5	28.0	1.91	1.95	1106.0	1097.7
4 × 16	126/0.40	24.5	32.0	1.21	1.240	1380.0	1473.9



Table 4

Cores × Nominal Section (mm ²)	Conductive core(mm) Number/Diameter of core	Average Outer Dia(mm ²)		20℃ Conductor Resistance ≡ (Ωkm)		Reference Weight(kg/km)	
		Minimum	Maximum Limit	Copper core	Tinning Copper core	YQ	YQW
4 × 25	196/0.40	29.5	37.5	0.780	0.795	2011.8	2137.3
4 × 35	276/0.40	33.3	42.0	0.554	0.565	2637.2	2792.7
4 × 50	396/0.40	38.0	48.5	0.386	0.393	3634.4	3838.4
4 × 70	360/0.50	43.0	55.0	0.272	0.277	4861.7	5118.0
4 × 95	475/0.50	49.0	60.5	0.206	0.21	6425.5	6551.0
4 × 120	608/0.50	53.0	65.5	0.161	0.164	7479.6	7836.0
4 × 150	756/0.50	59.0	74.0	0.129	0.132	9302.4	9753.0
3 × 25+1 × 1.5	49/0.25+30/0.25	12.5	15.5	7.98	8.21	282.7	305.6
3 × 4+1 × 1.5	56/0.30+49/0.25	14.5	17.5	4.95	5.09	406.8	435.7
3 × 6+1 × 4	84/0.30+56/0.30	16.0	21.0	3.30	3.39	600.1	640.3
3 × 10+1 × 6	84/0.40+84/0.30	20.5	26.5	1.91	1.95	925.1	990.9
3 × 16+1 × 6	126/0.40+84/0.40	23.0	30.5	1.21	1.24	1253.9	1341.5
3 × 25+1 × 10	196/0.40+84/0.40	28.0	35.5	0.780	0.8	1823.2	1941.3
3 × 35+1 × 10	276/0.40+84/0.40	30.0	38.5	0.554	0.565	1980.4	2115.9
3 × 50+1 × 16	396/0.40+126/0.40	36.0	46.0	0.386	0.393	3243.4	3439.7
3 × 70+1 × 25	360/0.50+196/0.40	40.0	51.0	0.272	0.277	4504.4	4772.6
3 × 95+1 × 35	475/0.50+276/0.40	44.0	55.0	0.206	0.21	5553.5	5838.3
3 × 120+1 × 35	608/0.50+276/0.40	46.5	59.0	0.161	0.164	6362.1	6662.4
3 × 150+1 × 50	756/0.50+396/0.40	52.0	66.0	0.129	0.132	7889.3	8252.6
5 × 1.5	30/0.25	11.5	15.0	13.30	13.7	221.4	240.6
5 × 2.5	49/0.25	13.5	17.0	7.98	8.21	347.6	372.7
5 × 4	56/0.30	16.0	19.5	4.95	5.09	497.1	528.9
5 × 6	84/0.30	18.0	24.5	3.30	3.39	765.7	815.0
5 × 10	84/0.40	24.0	31.0	1.91	1.95	1205.2	1289.0
5 × 16	126/0.40	27.0	35.5	1.21	1.24	1668.8	1777.0
5 × 25	196/0.40	32.5	41.5	0.780	0.795	2434.3	2587.1

5.Current carrying capacity of General Rubber Sheath Flexible Cable

Table 5

Main core Section (mm ²)	Long Time Continuing Current Capacity						
	YZ、YZW			YC、YCW			
	2-core	3-core	4-core	1-core	2-core	3-core	4-core
0.75	14	12	11				
1	17	14	13				
1.5	21	18	18				
2	26	22	22				
2.5	30	25	25	37	30	26	27
4	41	35	35	47	39	34	34
6	53	45	45	52	51	44	44
10				75	74	63	63
16				112	96	84	84
25				148	135	115	116
35				188	167	142	143
50				226	208	176	177

Conversion Coefficient of Current Carrying of Different Surrounding Temperature

Table 6

Surrounding Temperature	15	20	25	30	35	40
Exchange Coefficient	1.12	1.06	1.00	0.94	0.87	0.97





Welding Cable(GB5013-93)

1. Service Conditions

This product is suitable for the welding machine whose voltage to the ground is not more than 200V and pulsating value is 400V.

2. Model, Names and Work in this Temperature(See Table 1)

Table 1

Model	Name	Welding Temperature of core ≐(°C)
YH	Natural Rubber Sheath for Welding Cable	65
YHF	Horoprene Rubber or Other Synthetic Welding Cable	65

3. Specifications, Size, Weight and Technical Data(See Table 2)

Table 2

Conductor Nominal Section (mm ²)	Conductive core(mm) Number/ Diameter of core	Thickness of Section Sheath (mm)	Average Outer Dia(mm ²)		20°C Conductor Resistance ≐(Ωkm)	Reference Weight(kg/km)	
			Minimum	Maximum		YH	YHF
10	322/0.20	1.8	7.5	9.7	1.91	146.0	153.51
16	513/0.20	2.0	9.2	11.5	1.16	218.9	230.44
25	798/0.20	2.0	10.5	13.0	0.758	316.6	331.15
35	1121/0.20	2.0	11.5	14.5	0.536	426.0	439.87
50	1596/0.20	2.2	13.5	17.0	0.379	592.5	610.55
70	2214/0.20	2.4	15.0	19.5	0.268	790.0	817.52
95	2997/0.20	2.6	17.0	22.0	0.198	1066.2	1102.97
120	1702/0.30	2.8	19.0	24.0	0.161	1348.3	1392.55
150	2135/0.30	3.0	21.0	27.0	0.129	1678.5	1698.72
185	1443/0.40	3.2	22.0	29.0	0.106	1983.8	2020.74

4. Delivery Requirements

If cable packed in circle, its length should be 100m long. If it is packing in bundle, its length should be not than 100m. The short cables which are not less than 20m are permissible to delivery. The quantity of short cable should be no more than 10% of the whole delivery. If mutual agreement is made, everything will be done according to the agreement.



CONTROL CABLE

1. PVC insulated & sheathed control cable

1.1 PVC insulated & sheathed control cable is suitable for connecting wires between electric equipments in controlling, monitoring loop and protecting circuit at rated voltage up to and including 600/100V (A.C.). The product has not only excellent characteristics in electric and mechanical purpose but also in performances of chemical corrosion resistance, heat-aging, environmental stress and flame-retardant. The product has simple construction and convenient to use and could be laid with no restriction of different levels.

Our product of PVC insulated and sheathed control cable can be manufactured according to the Chinese Standard GB9330-88, which was complied with reference to IEC227, IEC502 and the Standards of Germany, American, Japan and U.S.S.R for control cable.

1.2 Flame-retardant control cable

Flame-retardant control cable is suitable for connecting wires between electric equipments with a special flame-retardant requirement in controlling, monitoring loop and protecting circuit at rated voltage up to 600/1000V(A.C.). Our flame-retardant control cable includes A class flame-retardant control cable, special flame-retardant control cable, low smoke halogen free flame-retardant control cable, low smoke low halogen flame-retardant control cable, XLPE insulated control cable and XLPE insulated flame-retardant control cable.

2. Applications

2.1 Rated voltage U₀/U should be 450/750V~600/1000V

U₀-Valid value of the voltage between main insulated conductor and earthing (metal shield, metal sheath of environment dielectric).

U-valid value of voltage between any two phases conductor in multicourse cable or single core cable system.

When AC. System is applied, the rated voltage of cables should be at least equal to the nominal voltage of the system. When DC. System is applied; the nominal voltage of this system should not be more than the rated voltage of the system by 1.5 times.

2.2 The permitting long-term operating temperature of cable conductor should be

PVC insulation: 70°C

Chemical Sioplascale: 90°C

Irradiation XLPE: 105~135°C

2.3 The installing temperature of cable should not be less than 0°C. Recommending permitted bending radius:

Non-armored cable: not less than the overall diameter f cable by 6 times

Shielded flexible cable: not less than the overall diameter of cable by 6 times

2.4 The performances of electric and physical machinery shall be conform to the requirements of Chinese Standard GB9330 《Plastic insulation armoured cable》.

2.5 The flame-retardant performance of flame-retardant armoured cable shall be conform to the requirements of 《Test method for electric cable and wire》(same as IEC332).

2.6 Characteristic of low smoke halogen free(only for low smoke halogen free flame-retardant armoured cable).

Halogen free performance: conform to the requirement of IEC754 《Hydrogen-halogen acid gas quantity test》.

Low smoke character performance: confirm to the requirement of GB12666.7 《Gas consistence of Wire and cable buring test》.

Low toxicity performance: conform to requirement of NES713 《Measurement of toxicity index》.

3. Type and main applications of cable shown in tables

Table 1

4. Specification of cable shown in Table 2

Note: Commend cores number is 2、3、4、5、7、8、10、12、14、16、19、24、27、30、37、44、48、52、61.

5. Distinguish of insulated and arrange drawing

5.1 Colors distinguish

Colors distinguish for insulated core of 5 cores and below

5.2 For the cable distinguished by digits, the colours of insulation and digits marks should be different distinctly so that it is easy to separate the cores in installing. The colour of insulation should be black, white, yellow, corresponding digits colour is white, black (blue), black (blue) etc.

Table 2

Type	Nominal Area of conductor							
	0.5	0.75	1.0	1.5	2.5	4	6	10
	No. of core							
KVV KVVP ZRA-KVV ZRA-KYJV KFYJV ZRA-KVVP ZRA-KYJVP ZRA-KFYJVP TZR-KVV TZR-KYJV TZR-KFYJV TZR-KVVP TZR-KYJVP TZR-KFYJVP WZR-KYJE WZR-KFYJE WZR-KYJEP WZR-KFYJEP	--	2~61				2~14		2~10

Table 3

Type	Description	Main Applications
KVV	Copper core PVC insulated and sheathed control cable	For laying indoor, in tunnels, ducts, conduit etc. permanent place
KVVP	Copper core PVC insulated and sheathed copper wire braiding shielded control cable	For laying indoor, in tunnels, ducts, conduit etc. permanent place where shield required.
KVVP2	Copper core PVC insulated and sheathed copper tape shielded control cable	For laying indoor, in tunnels, ducts, conduit etc. permanent place where shield required.
KVV22	Copper core PVC insulated and sheathed steel tape armoured control cable	For laying indoor, in tunnels, ducts, conduit and direct burial etc. Permanent place, able to bear greater mechanical force
KVV32	Copper core PVC insulated and sheathed steel wire armoured control cable	For laying indoor, in tunnels, ducts, conduit and direct burial etc. Permanent place, able to bear greater mechanical force
KVVR	Copper core PVC insulated and sheathed flexible control cable	For laying indoor, and flexible and shield required etc. place, easy to move
KVVRP	Copper core PVC insulated and sheathed copper wire braiding shielded flexible control cable	For laying indoor, and flexible and shield required etc. place, easy to move
ZR-KVV	Copper core PVC insulated and sheathed flame-retarding control cable	For being applied on heat engine and heat controlling appliance

