



2018年版

# 电线电缆选型样本

## Wires&Cables Catalogue

安徽天康(集团)股份有限公司  
ANHUI TIANKANG(GROUP) SHARES CO.,LTD



天康集团

# INNOVATION MAKES EXCELLENT

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ANHUI TIANKANG(GROUP) SHARES CO.,LTD

## 企业介绍

### company profile



安徽天康（集团）股份有限公司创建于1974年，总部位于“长三角”经济圈核心区域--天长市，历经四十多年的发展，集团现已是中国民营企业制造业500强企业、国家级高新技术企业、国家级守合同重信用企业、中国电子信息百强、中国质量诚信企业、银行资信AAA级企业、中国电子元件百强企业、中国电线电缆10强企业、安徽省重点骨干企业、“全国五一劳动奖状”获得者。

天康集团光电缆生产厂区面积近20万平方米，拥有高压交联生产线、矿物绝缘电缆生产线、橡胶电缆生产线、伴热电缆生产线、电子辐照加速器生产线、电力电缆生产线及特种电缆生产线200余台套。所生产的电力电缆、控制电缆、计算机电缆、新能源电动车用电缆、硅橡胶电缆、氟塑料电缆、通信用数据电缆、核电站用电缆、船用电缆、机车电缆、光伏电缆、风能电缆、特种电缆等产品，凭借良好的质量和售后服务，产品被广泛应用于石油、电力、化工、运输、通讯、卫生、新能源汽车及储能等行业和领域。

作为皖东经济最具活力与贡献的骨干企业之一，天康集团以“追求卓越，缔造满意”为目标，依托一流的产品、一流的管理、一流的服务，不仅在国内市场中赢得了广泛赞誉；在国际市场中，天康产品远销欧洲、非洲、亚洲等46个国家和地区。

天康集团在发展中逐步形成了独特的品牌文化及着眼全球的经营布局，全力塑造“高科技、高品质、国际化”的品牌形象。始终秉承“有跨越才有卓越”的天康精神，在创建和谐企业的基础上，引进国际先进的构架与模式，组织企业的生产经营管理体系。在积极参与国际化竞争的基础上，不断把握市场发展脉搏，寻求经济战略联盟，与全球伙伴共同发展与进步。如今天康人将全新的投入化为无私的奉献，与世界共同发展，与人类一起进步。



Anhui Tiankang (Group) Shares CO.,LTD was founded in 1974, the headquarters is located in the core area of the "Yangtze River Delta" economic circle-Tianchang, after more than 40 years development, the group has gained a lot of honor, such as the top 500 enterprises of Chinese private enterprise manufacturing industry, National high-tech enterprise, State-level contract heavy-Credit Enterprises, Top 100 Enterprises of Chinese Electronic Information, Chinese quality and integrity enterprises, Bank credit AAA Enterprises, Top 100 Enterprises of Chinese electronic components, Top 10 Enterprises of Chinese wire and cable, key enterprises in Anhui Province, and the National May 1 Labor Award. Tiankang group optical cable production plant area is nearly 200 thousand square meters, has a high crosslinking production line, mineral insulated cable production line, rubber sheathed cable production line, heating cable production line, electron irradiation accelerator production line, power cable production line and special cable production line 200 sets. The products include power cable, control cable, computer cable, new energy electric cable, silicone rubber cable, fluorine plastic cable and the data cable for communication, nuclear power cable, marine cable, locomotive cable, photovoltaic cable, wind power cable, special cable and other products, with good quality and service, are widely used in petroleum, chemical, electric power, transportation, communications, health, new energy vehicles, energy storage and other industries and fields.

As one of the backbone enterprises of the East Anhui economy with the most vitality and contribution, "striving for excellence, create satisfaction" as the goal of group, relying on first-class products, first-class management and first-class service, it not only won extensive praise in the domestic market; in international market, the products are exported to Europe, Africa, Asia and other 46 countries and regions.

Tiankang group has gradually formed the brand culture and global business layout unique during the development, to create "high-tech, high-quality, international" brand image. Always adhering to the "leap to excellence" spirit, on the basis of creating a harmonious enterprise, introduce the international advanced framework and model, improve the enterprise's production and management system, the organization of enterprises. On the basis of actively participating in international competition, we constantly grasp the pulse of the market development, seek the economic strategic alliance, and joint development and progress with global partners.

竭诚为客户提供一流的产品和至上的服务

Wholeheartedly Provide Customers With First-class Products and Service



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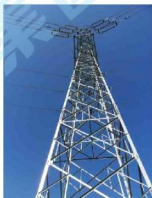
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## 电力电缆 Power cable



35kV及以下交联聚乙烯绝缘电力电缆

XLPE Insulation Power Cable of 35kV and below

0.6/1kV及以下塑料绝缘及护套电力电缆

Plastic insulated and Sheath power cable of 0.6/1kV and below

通信电源用阻燃耐火软电缆

Flame Retardant and Fire Resistant Flexible Cable for telecommunication Power Supply

金属屏蔽电力电缆

Metal shielding Power Cable

变频电缆

Frequency Conversion Cable

耐高温（阻燃）电力电缆

High temperature resistant(flame retardant)power cable

硅橡胶（阻燃）电力电缆

Silicon rubber (flame retardant)power cable

硅橡胶（阻燃）扁电力电缆

Silicon rubber (flame retardant)flat power cable

具有屏蔽和耐化学品功能的电缆

Cable with Shielding and Chemical Medicine Resistant

# 35kV及以下交联聚乙烯绝缘电力电缆

## 35 kV and below Power Cable with XLPE Insulation

本产品适用于固定敷设在交流50Hz, 额定电压35kV及以下的电力输配电线路上作输送电能用。与聚氯乙烯绝缘电力电缆相比, 交联电力电缆产品不仅具有优异的电气性能、机械性能、耐热老化性能、耐环境应力和耐化学腐蚀性能的能力, 而且结构简单, 重量轻, 不受敷设落差限制, 长期工作温度90°C等特点。

### 一、生产执行标准

GB/T12706.1-2008—GB/T12706.3-2008《额定电压1kV ( $U_m=1.2kV$ ) 到35kV ( $U_m=40.5kV$ ) 挤包绝缘电力电缆》, 也可按用户需要, 采用国际电工委员会IEC60502标准生产。

### 二、使用特点

1. 电缆导体的允许长期最高工作温度为90°C;
2. 短路时(最长持续时间不超过5秒)电缆导体的最高温度不超过250°C;
3. 电缆敷设时的环境温度不得低于0°C;
4. 电缆的最小弯曲半径:  
多芯电缆无铠装不小于电缆外径的15倍, 有铠装不小于电缆外径的12倍;  
单芯电缆无铠装不小于电缆外径的20倍, 有铠装不小于电缆外径的15倍;
5. 电缆的工频额定电压 $U_0/U$ 为0.6/1kV~26/35kV,  
 $U_0$ : 电缆设计用的导体对地或金属屏蔽之间的额定工频电压, 称相电压;  
 $U$ : 电缆设计用的导体间的额定工频电压, 称线电压;  
 $U_m$ : 设备可承受的“最高系统电压”的最大值;  
 $D$ : 电缆外径。

### 三、电缆型号名称及适用场合

型号 Type	名称 Description	适用场合 Application occasion
铜 Cu 铝 Al		
YJV YJLV	交联聚乙烯绝缘聚氯乙烯护套电力电缆 Power cable with XLPE insulation,PVC sheath.	敷设在室内、隧道、电缆沟及管道中, 也可埋在松散的土壤中, 电缆不能承受机械外力作用。单芯电缆不允许敷设在磁性管道中。 To be laid indoors, in the tunnel, cable furrow, pipe or under soft soil. The cable can not bear mechanical force from outside. Single core cable isn't permitted to be laid in the magnetic pipe.
YJY YJLY	交联聚乙烯绝缘聚乙烯护套电力电缆 Power cable with XLPE insulation,PE sheath.	
YJV22 YJLV22	交联聚乙烯绝缘带铝装甲聚乙烯护套电力电缆 Power cable with XLPE insulation, steel tape armored,PVC sheath.	
YJV23 YJLV23	交联聚乙烯绝缘带铝装甲聚乙烯护套电力电缆 Power cable with XLPE insulation, steel tape armored,PE sheath.	直埋敷设在地下(埋设深度: 距地面 $\geq 0.7m$ ), 电缆能承受一定机械外力作用, 但不能承受大的拉力。 To be laid underground(depth of burying more than 0.7m). The cable can bear certain mechanical force, but it can not bear great pulling force.
YJV32 YJLV32	交联聚乙烯绝缘钢丝铠装聚乙烯护套电力电缆 Power cable with XLPE insulation, steel wire armored,PVC sheath.	
YJV33 YJLV33	交联聚乙烯绝缘钢丝铠装聚乙烯护套电力电缆 Power cable with XLPE insulation, steel wire armored,PE sheath.	

The cable is used to transmit power on the power transmission and distribution line of A.C.50Hz, rated voltage 35kV and below. By comparison with power cable with PVC insulation, it has not only excellent electric performance, mechanical performance, heat & aging resistant performance, weather resistant performance, chemical corrosion resistant performance, but also simple structure, light weight, no restriction by laying drop, and working temperature is 90°C for long term.

### Executive standard

GB/T12706.1-2008—GB/T12706.3-2008《Rated voltage 1kV ( $U_m=1.2kV$ ) to 35kV ( $U_m=40.5kV$ ) extruded insulated power cable》, also can use the IEC60502 standard of the International Electrotechnical Commission as required by the user.

### Working Condition

1. Long-term working temperature by cable conductor is 90°C.
2. Max. temperature of cable conductor shall be no more than 250°C during short circuit (the longest lasting time shall be no more than 5 seconds).
3. Environment temperature for installation is no less than 0°C.
4. Min bending radius of cable:  
The multi core cable without armored is not less than 15 times of the outer diameter of the cable, the multi core with armored is not less than 12 times of the outer diameter of the cable. The single core cable without armored is not less than 20 times of outer diameter of the cable, the single core cable with armored is not less than 15 times of the outer diameter of the cable.
5. Power frequency rated voltage  $U_0/U$  of cable is 0.6/1kV~26/35kV.  
 $U_0$ : Power frequency rated voltage of the conductor for cable designing to earth or between metallic, which is called phase voltage.  
 $U$ : Power frequency rated voltage between conductor for cable designing, which is called wire voltage.  
 $U_m$ : The max value of the "Maximum system voltage" which the equipment can bear.  
 $D$ : outside diameter of cable.

### Type, Description and Application Occasion

备注:

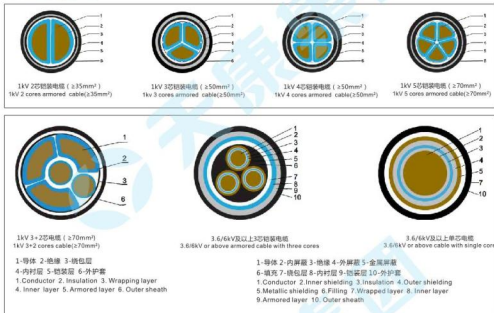
1. 可根据用户需要, 提供钢丝铠装型交联电缆, 如: YJV32, YJLV32, YJV3, YJLV33;
2. 需要阻燃型电缆, 应在原型号前加“Z-、ZR-、ZA-、ZB-ZC-、ZD-”表示;
3. 需要耐火型电缆, 应在原型号前加“ZN-、ZAN-、ZBN-、ZCB-ZDN-、WDZN-、WDZAN-、WDZBN-、WDZCB-WDZDN-、ZD-”表示。

Note:

1. We also produce steel wire armored cross-linked power cable such as YJV32, YJLV32, YJV33, YJLV33 according to the requirement of the customer.
2. When need flame retardant cable Prefix“Z-、ZR-、ZA-、ZB-、ZC-、ZD-”sh could be added before the prototype type.
3. when need fire resistant cable Prefix“ZN-、ZAN-、ZBN-、ZCB-、ZDN-、WDZN-、WDZAN-、WDZBN-、WDZCB-、WDZDN-、ZD-”should be added before the prototype type.

#### 四、电缆结构示意图

#### The Figure of Cable Structure



#### 五、生产范围

#### Production Scope

型号 Type		芯数 Core No.	额定电压 (kV) Rated voltage								
铜 Cu	铝 Al		0.6/1	1.8/3	3.6/6	6/6 6/10	8.7/10 8.7/15	12/20	18/20 18/30	21/35	26/35
YJV YJY	YJLV YJLY	1	1.5-800	10-800	25-630	25-630	25-500	35-630	50-630	50-630	50-630
		3	1.5-300	10-300	25-300	25-300	25-300	35-300	50-300	50-300	50-300
		2	1.5-240	10-150	/	/	/	/	/	/	/
		3+1	4-300	10-300	/	/	/	/	/	/	/
		3+2 4+1	50-240	/	/	/	/	/	/	/	/
		5	1.5-150	/	/	/	/	/	/	/	/
YJV22 YJV23	YJLV22 YJLV23	1	10-800	10-800	25-630	25-630	25-630	35-630	50-630	50-630	50-630
		3	2.5-300	10-240	25-300	25-300	25-300	35-300	50-300	50-300	50-300
		2	4-150	10-150	/	/	/	/	/	/	/
		3+1	4-300	10-240	/	/	/	/	/	/	/
		3+2 4+1	50-240	/	/	/	/	/	/	/	/
		5	2.5-150	/	/	/	/	/	/	/	/

## 六、电缆外径尺寸

OD Size of Cable(OD:outer diameter)

YJV-0.6/1kV、YJLV-0.6/1kV Table 1

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
1*1.5	0.7	1.4	5.6	/	/
1*2.5	0.7	1.4	6.0	68	/
1*4	0.7	1.4	6.5	87	/
1*6	0.7	1.4	7.0	110	/
1*10	0.7	1.4	8.2	115	95
1*16	0.7	1.4	9.3	220	120
1*25	0.9	1.4	11.0	345	190
1*35	0.9	1.4	12.0	424	207
1*50	1.0	1.4	13.8	554	245
1*70	1.1	1.4	16.2	770	336
1*95	1.1	1.5	17.2	1040	455
1*120	1.2	1.5	19.1	1290	550
1*150	1.4	1.6	21.2	1575	642
1*185	1.6	1.7	23.1	1929	796
1*240	1.7	1.8	26.0	2500	1016
1*300	1.8	1.9	28.4	3056	1230
1*400	2.0	2.0	33.1	3622	1446
1*500	2.2	2.1	37.8	4950	1845

YJV-0.6/1kV、YJLV-0.6/1kV Table 2

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
2*1.5	0.7	1.8	9.7	103	/
2*2.5	0.7	1.8	10.6	131	/
2*4	0.7	1.8	11.5	168	118
2*6	0.7	1.8	12.6	216	142
2*10	0.7	1.8	15.2	328	189
2*16	0.7	1.8	17.3	461	245
2*25	0.9	1.8	20.0	659	329
2*35	0.9	1.8	22.0	868	413
2*50	1.0	1.8	19.8	1116	489
2*70	1.1	1.8	22.2	1514	644
2*95	1.1	2.0	25.2	2017	830
2*120	1.2	2.1	28.0	2526	1026
2*150	1.4	2.2	31.2	3139	1266
2*185	1.6	2.3	34.2	3967	1773
2*240	1.7	2.5	38.0	5053	2207

YJV-0.6/1kV, YJLV-0.6/1kV Table 3

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
3*1.5	0.7	1.8	10.0	145	/
3*2.5	0.7	1.8	10.8	185	/
3*4	0.7	1.8	11.8	250	175
3*6	0.7	1.8	12.9	320	210
3*10	0.7	1.8	15.7	450	260
3*16	0.7	1.8	18.0	640	340
3*25	0.9	1.8	20.8	940	470
3*35	0.9	1.8	22.9	1260	600
3*50	1.0	1.8	22.6	1670	730
3*70	1.1	1.9	26.5	2280	970
3*95	1.1	2.0	29.8	3020	1240
3*120	1.2	2.1	33.0	3795	1540
3*150	1.4	2.3	38.6	4750	1940
3*185	1.6	2.4	41.6	5654	2248
3*240	1.7	2.6	46.4	7243	2723
3*300	1.8	2.8	50.6	8832	3218

YJV-0.6/1kV, YJLV-0.6/1kV Table 4

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
4*1.5	0.7	1.8	10.6	139	84
4*2.5	0.7	1.8	11.5	150	107
4*4	0.7	1.8	12.8	253	151
4*6	0.7	1.8	14.0	337	198
4*10	0.7	1.8	17.0	501	291
4*16	0.7	1.8	19.6	778	455
4*25	0.9	1.8	22.8	1160	696
4*35	0.9	1.8	25.2	1554	905
4*50	1.0	1.9	27.0	2148	1235
4*70	1.1	2.0	31.0	2928	1640
4*95	1.1	2.1	34.6	3954	2294
4*120	1.2	2.3	39.0	4925	2865
4*150	1.4	2.4	42.4	6238	3618
4*185	1.6	2.6	48.0	7562	4395
4*240	1.7	2.9	51.2	9660	5603
4*300	1.8	3.1	59.8	11758	6585

YJV-0.6/1kV, YJLV-0.6/1kV Table 5

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
3*4+1*2.5	0.7	1.8	12.3	236	180
3*6+1*4	0.7	1.8	13.5	316	210
3*10+1*6	0.7	1.8	16.6	460	380
3*16+1*10	0.7	1.8	19.2	679	375
3*25+1*16	0.9	1.8	22.4	1065	586
3*35+1*16	0.9	1.8	24.6	1368	821
3*50+1*25	1.0	1.8	27.0	1901	1141
3*70+1*35	1.1	1.9	31.0	2585	1463
3*95+1*50	1.1	2.1	35.2	3718	2231
3*120+1*70	1.2	2.2	39.0	4443	2665
3*150+1*70	1.4	2.3	41.8	5326	3190
3*185+1*95	1.6	2.5	47.0	6628	3842
3*240+1*120	1.7	2.7	52.6	8501	5001
3*300+1*150	1.8	2.9	57.9	10320	5679

YJV-0.6/1kV, YJLV-0.6/1kV Table 6

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
3*50+2*25	1.0/0.9	1.9	27.7	2155	953
3*70+2*35	1.1/0.9	2.0	32.2	2960	1278
3*95+2*50	1.1/1.0	2.2	36.3	3967	1654
3*120+2*70	1.2/1.1	2.3	40.7	5106	2102
3*150+2*70	1.4/1.1	2.4	43.5	5990	2445
3*185+2*95	1.6/1.1	2.6	48.0	7495	3019
3*240+2*120	1.7/1.2	2.8	53.4	9548	3781

YJV-0.6/1kV, YJLV-0.6/1kV Table 7

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
4*50+2*25	1.0/0.9	1.9	29.0	2406	1055
4*70+2*35	1.1/0.9	2.1	33.9	3312	1419
4*95+2*50	1.1/1.0	2.2	38.0	4410	1826
4*120+2*70	1.2/1.1	2.4	41.9	5569	2265
4*150+2*70	1.4/1.1	2.5	45.4	6755	2729
4*185+2*95	1.6/1.1	2.7	50.3	8379	3363
4*240+2*120	1.7/1.2	2.9	56.0	10726	4237



YJV-0.6/1kV、YJLV-0.6/1kV Table 8

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
5*1.5	0.7	1.8	11.4	182	/
5*2.5	0.7	1.8	12.5	239	/
5*4	0.7	1.8	13.8	341	200
5*6	0.7	1.8	15.0	448	252
5*10	0.7	1.8	18.5	677	372
5*16	0.7	1.8	21.3	1000	512
5*25	0.9	1.8	24.0	1504	742
5*35	0.9	1.8	27.5	2027	958
5*50	1.0	1.9	31.4	2815	1233
5*70	1.1	2.1	36.8	3881	1667
5*95	1.1	2.2	40.5	5155	2149
5*120	1.2	2.4	41.0	6400	2606
5*150	1.4	2.5	49.2	7967	3222

YJV22-0.6/1kV、YJLV22-0.6/1kV Table 9

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22*	YJLV22*
1*10	0.7	1.8	12.0	290	230
1*16	0.7	1.8	13.1	366	270
1*25	0.9	1.8	14.8	487	335
1*35	0.9	1.8	15.9	600	388
1*50	1.0	1.8	18.3	768	465
1*70	1.1	1.8	20.0	993	566
1*95	1.1	1.8	21.5	1255	676
1*120	1.2	1.8	24.2	1603	788
1*150	1.4	1.8	25.6	1840	924
1*185	1.6	1.8	27.8	2223	1092
1*240	1.7	1.8	30.6	2790	1326
1*300	1.8	1.9	33.4	3400	1570
1*400	2.0	2.0	37.8	4445	1977
1*500	2.2	2.2	42.6	5605	2457

YJV22-0.6/1kV、YJLV22-0.6/1kV Table 10

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
2*4	0.7	1.8	14.5	366	/
2*6	0.7	1.8	15.6	432	/
2*10	0.7	1.8	18.2	590	472
2*16	0.7	1.8	20.3	763	574
2*25	0.9	1.8	23.0	1001	721
2*35	0.9	1.8	25.0	1250	854
2*50	1.0	1.8	21.8	1535	1002
2*70	1.1	1.9	25.7	1985	1282
2*95	1.1	2.0	28.7	2638	1872
2*120	1.2	2.2	31.5	3445	2203
2*150	1.4	2.3	34.7	4165	2637
2*185	1.6	2.4	38.2	5202	3187
2*240	1.7	2.6	42.0	6445	3932

YJV22-0.6/1kV, YJLV22-0.6/1kV Table 11

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
3*2.5	0.7	1.8	13.8	408	/
3*4	0.7	1.8	14.8	505	420
3*6	0.7	1.8	15.9	597	473
3*10	0.7	1.8	18.7	756	571
3*16	0.7	1.8	21.0	983	691
3*25	0.9	1.8	23.8	1343	895
3*35	0.9	1.8	25.9	1721	1086
3*50	1.0	1.8	26.1	2173	1262
3*70	1.1	2.0	30.0	3143	1869
3*95	1.1	2.2	33.3	3979	2237
3*120	1.2	2.3	36.5	4844	2622
3*150	1.4	2.4	40.6	5972	3172
3*185	1.6	2.6	45.6	6941	3595
3*240	1.7	2.7	50.4	8699	4362
*300	1.8	2.9	55.1	10422	5210

YJV22-0.6/1kV, YJLV22-0.6/1kV Table 12

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
4*1.5	0.7	1.8	13.6	268	/
4*2.5	0.7	1.8	14.5	311	/
4*4	0.7	1.8	15.8	479	383
4*6	0.7	1.8	17.0	586	444
4*10	0.7	1.8	20.0	800	579
4*16	0.7	1.8	22.6	1138	764
4*25	0.9	1.8	25.8	1598	1015
4*35	0.9	1.8	28.7	2049	1232
4*50	1.0	1.9	30.5	2583	1443
4*70	1.1	2.1	34.5	3717	2136
4*95	1.1	2.3	38.6	4767	2592
4*120	1.2	2.4	43.0	5759	3029
4*150	1.4	2.6	46.4	7173	3694
4*185	1.6	2.7	52.5	8513	4292
4*240	1.7	2.9	55.7	10641	5208
4*300	1.8	3.1	64.8	12699	6047

YJV22-0.6/1kV, YJLV22-0.6/1kV Table 13

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
3*4+1*2.5	0.7	1.8	15.3	472	/
3*6+1*4	0.7	1.8	16.5	579	/
3*10+1*6	0.7	1.8	19.6	762	548
3*16+1*10	0.7	1.8	22.2	1034	705
3*25+1*16	0.9	1.8	25.4	1510	970
3*35+1*16	0.9	1.8	27.6	1865	1139
3*50+1*25	1.0	1.9	30.5	2431	1377
3*70+1*35	1.1	2.0	34.5	3502	2037
3*95+1*50	1.1	2.2	39.2	4823	2656
3*120+1*70	1.2	2.3	43.0	5625	3009
3*150+1*70	1.4	2.5	45.8	6592	3441
3*185+1*95	1.6	2.6	51.5	8045	4087
3*240+1*120	1.7	2.8	57.1	10120	4991
3*300+1*150	1.8	3.0	62.9	11971	5700

YJV22-0.6/1kV, YJLV22-0.6/1kV Table 14

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
3*50+2*25	1.0/0.9	1.9	31.2	2758	1558
3*70+2*35	1.1/0.9	2.1	35.7	3996	2323
3*95+2*50	1.1/1.0	2.3	40.3	5157	2834
3*120+2*70	1.2/1.1	2.4	44.7	6485	3468
3*150+2*70	1.4/1.1	2.5	47.5	7428	3869
3*185+2*95	1.6/1.1	2.7	52.5	9069	4604
3*240+2*120	1.7/1.2	2.9	57.9	11362	5597

YJV22-0.6/1kV, YJLV22-0.6/1kV Table 15

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
4*50+1*25	1.0/0.9	2.0	32.5	3080	1721
4*70+1*35	1.1/0.9	2.2	37.9	4471	2570
4*95+1*50	1.1/1.0	2.3	42.0	5733	3116
4*120+1*70	1.2/1.1	2.5	45.9	7073	3723
4*150+1*70	1.4/1.1	2.6	49.9	8376	4318
4*185+1*95	1.6/1.1	2.8	54.8	10139	5121
4*240+1*120	1.7/1.2	3.0	61.0	12764	6257

YJV22-0.6/1kV, YJLV22-0.6/1kV Table 16

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
5*2.5	0.7	1.8	15.5	485	/
5*4	0.7	1.8	16.8	610	469
5*6	0.7	1.8	18.0	744	550
5*10	0.7	1.8	21.5	1036	731
5*16	0.7	1.8	24.3	1410	922
5*25	0.9	1.8	26.5	2015	1252
5*35	0.9	1.8	33.0	2596	1527
5*50	1.0	2.0	34.0	3322	1815
5*70	1.1	2.2	39.3	4791	2686
5*95	1.1	2.4	44.5	6149	3293
5*120	1.2	2.5	49.3	7396	3820
5*150	1.4	2.7	54.1	9024	4560

YJV-3.6/6kV, YJLV-3.6/6kV Table 17

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
1*25	2.5	1.8	18.1	565	392
1*35	2.5	1.8	19.0	687	483
1*50	2.5	1.8	20.3	869	555
1*70	2.5	1.8	22.1	1090	656
1*95	2.5	1.8	23.7	1364	767
1*120	2.5	1.8	25.3	1625	879
1*150	2.5	1.8	27.1	1940	1000
1*185	2.5	1.9	28.8	2313	1151
1*240	2.6	2.0	31.3	2885	1382
1*300	2.8	2.1	34.5	3528	1654
1*400	3.0	2.2	38.5	4640	2155
1*500	3.2	2.3	42.3	5735	2634

YJV-3.6/6kV, YJLV-3.6/6kV Table 18

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
3*25	2.5	2.1	35.5	1763	1284
3*35	2.5	2.2	38.0	2150	1526
3*50	2.5	2.3	41.2	2720	1754
3*70	2.5	2.4	44.7	3423	2112
3*95	2.5	2.5	48.7	4297	2490
3*120	2.5	2.6	51.7	5135	2883
3*150	2.5	2.7	55.5	6165	3300
3*185	2.5	2.9	58.9	7332	3867
3*240	2.5	3.0	64.7	9146	4628
3*300	2.5	3.3	72.6	11184	5540

YJV22-3.6/6kV, YJLV22-3.6/6kV Table 19

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22*	YJLV22*
1*25	2.5	1.8	21.9	706	553
1*35	2.5	1.8	22.7	831	613
1*50	2.5	1.8	24.0	999	694
1*70	2.5	1.8	25.8	1232	800
1*95	2.5	1.8	27.4	1500	928
1*120	2.5	1.9	29.0	1788	1055
1*150	2.5	2.0	31.8	2270	1340
1*185	2.5	2.0	33.4	2637	1496
1*240	2.6	2.1	36.0	3202	1741
1*300	2.6	2.2	39.5	3846	2001
1*400	3.0	2.3	43.5	4872	2435
1*500	3.2	2.5	47.5	5907	2845
1*630	3.2	2.6	51.0	7560	3500

YJV22-3.6/6kV, YJLV22-3.6/6kV Table 20

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
3*25	2.5	2.2	40.5	2767	2273
3*35	2.5	2.3	42.7	3226	2636
3*50	2.5	2.4	46.0	4690	2912
3*70	2.5	2.6	49.7	4518	3358
3*95	2.5	2.7	53.7	5500	3860
3*120	2.5	2.8	56.8	6419	4353
3*150	2.5	2.9	60.6	7521	4818
3*185	2.5	3.0	64.4	8725	5490
3*240	2.6	3.2	70.2	10883	6387
3*300	2.8	3.5	78.5	13197	7645

YJV-6/6kV, 6/10kV, YJLV-6/6kV, 6/10kV Table 21

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
1*25	3.4	1.8	20.5	644	482
1*35	3.4	1.8	21.4	769	541
1*50	3.4	1.8	22.7	926	614
1*70	3.4	1.8	24.3	1158	717
1*95	3.4	1.8	25.9	1456	839
1*120	3.4	1.8	27.4	1684	940
1*150	3.4	1.8	29.0	2020	1082
1*185	3.4	1.9	30.8	2391	1228
1*240	3.4	2.0	33.2	2940	1450
1*300	3.4	2.1	36.2	3678	1769
1*400	3.4	2.2	37.9	4565	2119
1*500	3.4	2.3	41.9	5680	2537

**YJV-6/6kV, 6/10kV, YJLV-6/6kV, 6/10kV Table 22**

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
3*25	3.4	2.2	39.4	1967	1479
3*35	3.4	2.3	42.0	2381	1693
3*50	3.4	2.4	45.0	2892	1951
3*70	3.4	2.5	48.7	3632	2303
3*95	3.4	2.6	52.3	4615	2755
3*120	3.4	2.7	55.7	5361	3118
3*150	3.4	2.9	59.4	6395	3567
3*185	3.4	3.0	63.0	7634	4128
3*240	3.4	3.1	68.2	9342	4850
3*300	3.4	3.3	75.0	11600	5844

**YJV22-6/6kV, 6/10kV, YJLV22-6/6kV, 6/10kV Table 23**

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22*	YJLV22*
1*25	3.4	1.8	23.3	966	805
1*35	3.4	1.8	24.5	1107	882
1*50	3.4	1.8	25.8	1287	970
1*70	3.4	1.8	28.4	1540	1097
1*95	3.4	1.9	29.4	1863	1242
1*120	3.4	1.9	30.9	2355	1617
1*150	3.4	2.0	33.2	2727	1807
1*185	3.4	2.1	35.0	3156	2002
1*240	3.4	2.2	38.7	3733	2277
1*300	3.4	2.3	41.9	4524	2654
1*400	3.4	2.4	45.3	5432	3030
1*500	3.4	2.5	48.7	6588	3500

**YJV22-6/6kV, 6/10kV, YJLV22-6/6kV, 6/10kV Table 24**

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
3*25	3.4	2.3	44.7	3097	2609
3*35	3.4	2.4	47.5	3576	2888
3*50	3.4	2.5	50.6	4191	3250
3*70	3.4	2.6	54.3	5056	3727
3*95	3.4	2.8	58.2	6112	4252
3*120	3.4	2.9	61.3	6979	4736
3*150	3.4	3.0	65.5	8175	5347
3*185	3.4	3.1	69.0	9513	6007
3*240	3.4	3.3	74.3	11368	6876
3*300	3.4	3.5	81.0	13888	8132

YJV-8.7/10kV、8.7/15kV, YJLV-8.7/10kV、8.7/15kV Table 25

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
1*25	4.5	1.8	22.7	730	568
1*35	4.5	1.8	23.8	858	630
1*50	4.5	1.8	25.0	1020	708
1*70	4.5	1.8	26.6	1256	815
1*95	4.5	1.8	28.5	1561	944
1*120	4.5	1.9	30.0	1805	1061
1*150	4.5	1.9	31.4	2136	1198
1*185	4.5	2.0	33.4	2526	1363
1*240	4.5	2.1	35.8	3084	1596
1*300	4.5	2.2	38.6	3817	1908
1*400	4.5	2.3	42.0	4735	2289
1*500	4.5	2.4	44.6	5850	2720

YJV-8.7/10kV、8.7/15kV, YJLV-8.7/10kV、8.7/15kV Table 26

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
3*25	4.5	2.4	45.4	2276	1788
3*35	4.5	2.4	47.8	2703	2015
3*50	4.5	2.5	50.7	3239	2298
3*70	4.5	2.7	54.3	4008	2679
3*95	4.5	2.8	57.6	4989	3129
3*120	4.5	2.9	61.3	5744	3501
3*150	4.5	3.0	64.6	6868	4040
3*185	4.5	3.1	68.3	8094	4588
3*240	4.5	3.3	73.5	9877	5269
3*300	4.5	3.5	80.2	12184	6428

YJV22-8.7/10kV、8.7/15kV, YJLV22-8.7/10kV、8.7/15kV Table 27

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22*	YJLV22*
1*25	4.5	1.8	25.9	964	795
1*35	4.5	1.8	27.0	1098	875
1*50	4.5	1.8	28.2	1275	962
1*70	4.5	1.8	29.8	1532	1092
1*95	4.5	1.9	31.7	1857	1236
1*120	4.5	1.9	33.6	2264	1623
1*150	4.5	2.0	35.2	2734	1797
1*185	4.5	2.1	38.4	3157	2004
1*240	4.5	2.2	40.8	3731	2263
1*300	4.5	2.2	44.0	4504	2613
1*400	4.5	2.4	47.6	5445	3044
1*500	4.5	2.4	50.7	6610	3508

YJV22-8.7/10kV、8.7/15kV, YJLV22-8.7/10kV、8.7/15kV Table 28

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
3*25	4.5	2.5	50.2	3575	3087
3*35	4.5	2.6	52.6	4096	3408
3*50	4.5	2.7	55.4	4712	3772
3*70	4.5	2.8	59.3	5608	4279
3*95	4.5	2.9	63.0	6692	4832
3*120	4.5	3.0	67.0	7572	5329
3*150	4.5	3.2	70.7	8834	6006
3*185	4.5	3.3	74.3	10166	6660
3*240	4.5	3.5	79.5	12064	7572
3*300	4.5	3.8	86.8	15628	9872

YJV-12/20kV, YJLV-12/20kV Table 29

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
1*25	5.5	1.8	24.5	820	658
1*35	5.5	1.8	25.6	951	723
1*50	5.5	1.8	26.9	1118	806
1*70	5.5	1.8	28.5	1372	931
1*95	5.5	1.9	30.3	1663	1066
1*120	5.5	2.0	31.8	1934	1190
1*150	5.5	2.0	33.6	2269	1331
1*185	5.5	2.0	35.2	2667	1504
1*240	5.5	2.2	37.6	3216	1726
1*300	5.5	2.3	40.8	3977	2068
1*400	5.5	2.4	44.0	4888	2442
1*500	5.5	2.5	47.2	5914	2880

YJV-12/20kV, YJLV-12/20kV Table 30

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
3*25	5.5	2.5	49.2	2615	2127
3*35	5.5	2.6	51.6	3029	2341
3*50	5.5	2.7	54.9	3592	2651
3*70	5.5	2.8	58.4	4378	3049
3*95	5.5	2.9	62.2	5376	3516
3*120	5.5	3.0	66.6	6243	4000
3*150	5.5	3.2	69.3	7324	4486
3*185	5.5	3.3	73.2	8586	5080
3*240	5.5	3.4	78.0	10368	5876



YJV22-12/20kV, YJLV22-12/20kV Table 31

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22*	YJLV22*
1*25	5.5	1.8	27.3	1279	1132
1*35	5.5	1.9	28.7	1436	1200
1*50	5.5	1.9	30.0	1565	1249
1*70	5.5	2.0	32.0	1838	1387
1*95	5.5	2.1	34.2	2188	1567
1*120	5.5	2.1	35.5	2436	1702
1*150	5.5	2.2	38.8	2813	1876
1*185	5.5	2.2	40.2	3227	2076
1*240	5.5	2.2	42.4	3795	2330
1*300	5.5	2.3	46.0	4653	2792
1*400	5.5	2.4	49.3	5475	3101
1*500	5.5	2.5	52.4	6505	3542

YJV22-12/20kV, YJLV22-12/20kV Table 32

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22	YJLV22
3*25	5.5	2.6	49.2	2615	2127
3*35	5.5	2.7	51.8	3029	2341
3*50	5.5	2.8	54.9	3592	2651
3*70	5.5	2.9	58.4	4378	3049
3*95	5.5	3.0	62.2	5376	3516
3*120	5.5	3.2	65.6	6243	4000
3*150	5.5	3.3	69.3	7324	4496
3*185	5.5	3.4	73.2	8586	5080
3*240	5.5	3.6	78.0	10368	5876

YJV-18/30kV, YJLV-18/30kV Table 33

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
1*50	8.0	2.0	33.0	1498	1185
1*70	8.0	2.1	34.9	1784	1322
1*95	8.0	2.1	36.5	2121	1482
1*120	8.0	2.2	38.1	2379	1630
1*150	8.0	2.2	40.1	2723	1784
1*185	8.0	2.3	41.5	3147	1985
1*240	8.0	2.3	43.7	3698	2209
1*300	8.0	2.4	46.1	4534	2606
1*400	8.0	2.5	49.4	5377	2930
1*500	8.0	2.7	52.6	6328	3370

YJV22-18/30kV、YJLV22-18/30kV Table 34

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22*	YJLV22*
1*50	8.0	2.2	38.3	1972	1661
1*70	8.0	2.2	40.0	2261	1803
1*95	8.0	2.3	41.8	2647	2006
1*120	8.0	2.3	43.2	2923	2179
1*150	8.0	2.4	45.0	3319	2364
1*185	8.0	2.5	47.2	3743	2595
1*240	8.0	2.5	49.4	4364	2889
1*300	8.0	2.6	51.8	5211	3322
1*400	8.0	2.7	55.1	6077	3690
1*500	8.0	2.8	58.7	7156	4144

YJV-21/35kV、YJLV-21/35kV Table 35

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
1*50	9.3	2.1	36.4	1625	1313
1*70	9.3	2.1	38.0	1888	1447
1*95	9.3	2.2	39.8	2236	1619
1*120	9.3	2.2	41.3	2494	1750
1*150	9.3	2.3	43.1	2870	1932
1*185	9.3	2.4	44.7	3274	2111
1*240	9.3	2.5	47.1	3876	2386
1*300	9.3	2.5	49.5	4611	2702
1*400	9.3	2.6	52.8	5563	3117
1*500	9.3	2.9	56.0	6700	3580

YJV22-21/35kV、YJLV22-21/35kV Table 36

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22*	YJLV22*
1*50	9.3	2.3	41.1	2421	2101
1*70	9.3	2.3	42.8	2737	2286
1*95	9.3	2.4	44.6	3130	2509
1*120	9.3	2.4	46.4	3392	2660
1*150	9.3	2.5	48.2	3817	2898
1*185	9.3	2.5	49.8	4289	3103
1*240	9.3	2.6	52.2	4923	3436
1*300	9.3	2.7	54.6	5764	3837
1*400	9.3	2.8	58.3	6731	4333
1*500	9.3	2.9	61.5	7973	4869

YJV-26/35kV, YJLV-26/35kV Table 37

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV	YJLV
1*50	10.5	2.2	38.4	1803	1491
1*70	10.5	2.2	40.1	2071	1630
1*95	10.5	2.3	41.9	2419	1802
1*120	10.5	2.3	43.3	2692	1948
1*150	10.5	2.3	45.1	3077	2139
1*185	10.5	2.5	46.7	3487	2324
1*240	10.5	2.5	49.1	4100	2610
1*300	10.5	2.5	51.5	4843	2934
1*400	10.5	2.7	54.8	5610	3364
1*500	10.5	2.9	69.4	7138	4009

YJV22-26/35kV, YJLV22-26/35kV Table 38

芯数*导体标称截面 mm <sup>2</sup> Core no. * nominal cross section area of conductor	绝缘厚度 mm Insulated thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approximated outer diameter of cable	电缆近似重量 kg/km Approximated weight of cable	
				YJV22*	YJLV22*
1*50	10.5	2.3	4305	2705	2400
1*70	10.5	2.4	45.4	3023	2575
1*95	10.5	2.5	47.6	3387	2757
1*120	10.5	2.5	49.0	3661	2902
1*150	10.5	2.6	50.8	4092	3144
1*185	10.5	2.6	52.4	4533	3369
1*240	10.5	2.7	54.8	5248	3732
1*300	10.5	2.8	57.6	6005	4107
1*400	10.5	2.9	60.9	6449	4575
1*500	10.5	3.0	65.2	8423	6332

\*用于交流系统的单芯铠装电缆的铠装层应采用非磁性金属带绕包；  
单芯钢丝铠装电缆应采用隔磁措施。

Non-magnetic metallic tape wrapping should be adopted as armored layer of single core armored cable for A.C. system. Magnetism-separated measure shall be adopted by single core steel wire armored cable.

## 七、电缆主要技术参数

1、20℃时导体最大直流电阻值应满足GB/T3956标准中的2类导体的规定：

## Main Technical Parameter of Cable

The maximum DC resistance value of conductor at 20℃ shall meet the requirement of category 2 conductor stipulated in GB/T3956 standard.

导体标称截面 mm <sup>2</sup> Nominal cross section area of conductor	20℃时导体最大直流电阻 Ω/km Conductor max DC resistance at 20℃			导体标称截面 mm <sup>2</sup> Nominal cross section area of conductor	20℃时导体最大直流电阻 Ω/km Conductor max DC resistance at 20℃		
	铜芯导体 Cu conductor	镀锌导体 Tinned conductor	铝芯导体 Al conductor		铜芯导体 Cu conductor	镀锌导体 Tinned conductor	铝芯导体 Al conductor
1.5	12.1	12.2	/	70	0.268	0.270	0.443
2.5	7.41	7.56	/	95	0.193	0.195	0.320
4	4.61	4.70	/	120	0.153	0.154	0.253
6	3.08	3.11	/	150	0.124	0.126	0.206
10	1.83	1.84	3.08	185	0.0991	0.100	0.164
16	1.15	1.16	1.91	240	0.0754	0.0762	0.125
25	0.727	0.734	1.20	300	0.0601	0.0607	0.100
35	0.524	0.529	0.868	400	0.0470	0.0475	0.078
50	0.387	0.391	0.387	500	0.0366	0.0369	0.0605

## 2. 工频交流耐压试验;

## Power Frequency AC voltage withstand test

额定电压 kV Rated voltage kv	0.6/1	1.8/3	3.6/6	6/6 6/10	8.7/10 8.7/15	12/20	18/30	21/35	26/35
试验电压 kV Tested voltage kv	3.5	6.5	12.5	21	30.5	42	63	73.5	91
试验条件: 环境温度下, 5min, Testing condition: under environment temperature for 5min 试验要求: 绝缘应无击穿。 Testing requirement: insulation without puncture									

3. 局部放电电量应在1.73U0电压下测量局部放电电量, 其数值应不高于以下规定: Partial discharging capacity shall be tested at the voltage of 1.73U0, and its value shall be no more than that stipulated in the following table:

额定电压 kV Rated voltage	3.6/6	6/6 6/10	8.7/10 8.7/15	12/20	18/30	21/35	26/35
放电量 PC	10						

## 4. 电缆载流量(参考值)

## Current-loading Capacity of Cable (Reference value)

不同土壤热阻系数下的载流量修正系数

Current-loading capacity correcting coefficient under the heat-resistant coefficient of different soil

电压 kV Voltage	导体标称截面mm <sup>2</sup> Nominal cross section conductor	土壤热阻系数 °C·m/w Soil heat-resitant coefficient				
		0.8	1.0	1.2	1.5	2.0
0.6/1-6/6	≤35	1.06	1.00	0.95	0.88	0.80
	50-150	1.06	1.00	0.94	0.87	0.77
	≥185	1.09	1.00	0.93	0.85	0.76
6/10-12/15	≤35	1.05	1.00	0.95	0.89	0.80
	50-150	1.06	1.00	0.94	0.88	0.79
	≥185	1.07	1.00	0.93	0.86	0.77
12/20-26/35	≤95	1.05	1.00	0.95	0.90	0.82
	≥120	1.06	1.02	0.94	0.83	0.80

不同土壤温度下的载流量修正系数

Current-loading capacity correcting coefficient under different soil temperature

工作温度°C Working temperature	土壤温度°C Soil temperature					
90°C	10	15	20	25	30	35
修正系数 Correcting coefficient	1.11	1.07	1.04	1.00	0.96	0.92

## 4.1. 低压交联电力电缆 (0.6/1kV)

## XLPE Power Cable (0.6/1kV)

工作温度°C Working temperature	空气温度°C Air temperature							
90°C	10	15	20	25	30	35	40	45
修正系数 Correcting coefficient	1.18	1.13	1.09	1.04	1.00	0.95	0.90	0.84

导体材质 Conductor material	导体截面 mm <sup>2</sup> Cross section area of conductor	非铠装型电缆 Unarmoured Cable						铠装型电缆 Armoured Cable				
		单芯 Single core				三芯 3cores		三芯 3cores				
		空气 Air		土壤 Oil		空气 Air	土壤 Oil	空气 Air		土壤 Oil		
		○○○	○○	自然土壤	一般土壤	2.0	1.0	二芯 2 cores	三-五芯 3-5 cores	二芯 2 cores	三-五芯 3-5 cores	
铜导体 Copper Conductor	1.5	-	-	-	-	-	-	-	-	-	-	-
	2.5	41	31	42	39	-	39	-	-	45	35	-
	4	54	41	55	50	37	51	-	-	59	50	-
	6	58	52	69	62	47	64	-	-	74	60	-
	10	93	71	92	82	65	86	75	64	100	85	-
	16	120	92	115	105	84	110	97	83	135	110	-
	25	155	120	150	135	110	140	125	110	165	140	-
	35	195	150	180	160	135	170	155	135	200	170	-
	50	235	180	215	190	170	205	190	165	240	200	-
	70	295	230	265	230	215	250	245	210	295	245	-
	95	370	285	320	275	265	300	300	260	355	300	-
	120	430	335	360	315	310	345	350	305	405	335	-
150	495	385	410	355	350	385	400	345	455	380	-	
185	570	450	460	400	405	435	460	395	515	430	-	
240	680	535	535	460	480	500	-	465	-	500	-	
300	790	620	605	520	555	565	-	535	-	565	-	
400	920	720	685	590	640	640	-	395	-	650	-	
500	1080	835	775	665	-	-	-	-	-	-	-	
铝导体 Al Conductor	10	71	-	97	-	48	56	81	96	49	55	-
	16	121	-	162	-	82	92	133	159	82	90	-
	25	130	-	165	-	85	93	140	163	85	92	-
	35	160	-	199	-	102	111	170	196	104	110	-
	50	195	-	235	-	123	131	205	272	124	129	-
	70	239	-	289	-	152	159	250	284	153	158	-
	95	298	-	348	-	184	190	308	343	185	188	-
	120	340	-	398	-	213	216	361	392	214	213	-
	150	392	-	445	-	241	240	404	439	242	237	-
	185	459	-	505	-	277	271	469	497	277	267	-
	240	539	-	589	-	326	312	549	578	325	308	-
	300	629	-	664	-	372	351	636	654	-	-	-
400	731	-	762	-	-	-	741	751	-	-	-	
500	845	-	870	-	-	-	858	858	-	-	-	

\* 直埋深度：100cm

Depth of direct burning is 100cm

#### 4.2 中压交联电力电缆 (6kV-35kV)

#### XLPE Power Cable (6kV-35kV)

不同空气温度下的载流量修正系数

Current-loading capacity correcting coefficient under different air temperature

工作温度℃ Working temperature	空气温度℃ Air temperature							
90℃	10	15	20	25	30	35	40	45
修正系数 Correcting coefficient	1.26	1.22	1.18	1.13	1.09	1.04	1.00	0.94

(空气中)

(in the air)

导体截面 mm <sup>2</sup> Conductor cross section	YJV, YJY				YJLV, YJLY					
	3.6/6kV ~12/20kV		18/20kV ~26/35kV		3.6/6kV ~12/20kV		18/20kV ~26/35kV			
	单芯 Single core	三芯 3 cores	单芯 Single core	三芯 3 cores	单芯 Single core	三芯 3 cores	单芯 Single core	三芯 3 cores		
25	165	140	133	-	-	130	110	101	-	-
35	205	170	161	-	-	155	135	120	-	-
50	245	205	190	245	220	190	160	147	190	170
70	305	260	240	305	270	235	200	180	235	210
95	370	315	285	370	330	290	245	221	285	255
120	430	360	322	425	375	335	280	253	330	290
150	490	410	367	485	425	380	320	285	375	330
185	560	470	418	555	485	435	365	326	430	380
240	665	555	490	650	560	515	435	382	505	435
300	765	640	555	745	650	595	500	440	580	510
400	890	745	-	870	760	695	585	-	680	595
500	1030	855	-	1000	875	810	680	-	790	690

注：1. 空气温度为40℃；

2. 单芯电缆平型排列时，相邻电缆间的距离等于电缆外径。

Note: 1. Air temperature is 40°C.

2. Distance between two close cables amount to outer diameter of cable when being arrayed in parallel for cable with single core.

(空气中)

(in the air)

导体截面 mm <sup>2</sup> Conductor cross section	YJV, YJY				YJLV, YJLY					
	3.6/6kV ~12/20kV		18/20kV ~26/35kV		3.6/6kV ~12/20kV		18/20kV ~26/35kV			
	单芯 Single core	三芯 3 cores	单芯 Single core	三芯 3 cores	单芯 Single core	三芯 3 cores	单芯 Single core	三芯 3 cores		
25	160	150	147	-	-	120	115	114	-	-
35	190	180	180	-	-	145	135	132	-	-
50	225	215	212	225	215	175	160	158	175	165
70	275	265	262	275	265	215	200	198	215	200
95	330	315	312	330	315	255	240	237	255	240
120	375	360	358	375	360	290	270	267	290	270
150	425	405	400	420	400	330	305	300	325	305
185	480	455	451	475	455	370	345	341	370	345
240	555	530	528	555	525	435	400	396	430	400
300	630	595	590	630	595	490	455	450	490	455
400	725	680	-	720	680	565	520	-	565	525
500	825	765	-	825	775	650	595	-	645	600

注：1. 土壤温度为25℃，土壤热阻系数为1.0℃·m/w；

2. 单芯电缆平型排列时，相邻电缆间的距离等于电缆外径；

3. 铝装型电缆的载流量值可参照非铝装电缆，比非铝装电缆略小。

Note: 1. Soil temperature is 25°C. Heat-resistant coefficient of soil is 1.0 C·m/w.

2. Distance between two close cables amount to outer diameter of cable when being arrayed in parallel for cable with single core.

3. Current-loading capacity of armoured cable please refer to that of unarmoured cable, which is relevant smaller compared with that of unarmoured cable.

## 0.6/1kV及以下塑料绝缘及护套电力电缆

### Plastic insulated and Sheath power cable of 0.6/1kV or Lower

本产品适用于交流额定电压1.8/3kV及以下的电力线路中作输送电能用。其中五芯电力电缆是为适应配电系统的发展和安全性需要，将低压配电系统工程的中性与零线分开，使系统运行更趋稳定，保障了操作人员的安全性。

The cable is used to transmit power on the A.C. 1.8/3kV or below power transmission line. The five cores power cable is designed to separate the neutral and lines of low-voltage distribution system in order to meet the needs of the development and safety of the distribution system, so that the operation of the system is more stable and the safety of the operator is ensured.

#### 一、生产执行标准

GB/T12706.1等同采用国际电工委员会IEC60502。

#### Executive standard

GB/T12706.1 (Equal to the standard of IEC60502)

#### 二、使用特点

- 1、电缆导体长期允许工作温度不超过70℃；
- 2、短路时（最长持续时间不超过5秒），电缆导体的最高温度不超过160℃；
- 3、敷设电缆时的环境温度应不低于0℃。

#### Working Condition

- 1、Long-term working temperature of cable conductor allowed shall be no more than 70℃.
- 2、Max. temperature of cable conductor shall be no more than 160℃ during short circuit (the longest lasting time shall be no more than 5 seconds).
- 3、Environment temperature for installation shall be no less than 0℃.

#### 三、电缆基本型号名称

#### Type, Description and Application occasion

型号 Type		名称 Description	适用场合 Application
铜 Cu	铝 Al		
VV	VLV	铜（铝）芯聚氯乙烯绝缘聚氯乙烯护套电力电缆 Power cable with copper / AL conductor, PVC insulation and sheath	敷设在室内、隧道、电缆沟及管道中，电缆不能承受机械外力作用。 To be laid indoors, in the tunnel, cable furrow or pipe. The cable can not bear mechanical force from outside.
VV22	VLV22	铜（铝）芯聚氯乙烯绝缘钢带铠装聚氯乙烯护套电力电缆 Power cable with copper / AL conductor PVC insulation, steel tape armored and PVC sheath	敷设在地下，电缆能承受一定机械外力作用，但不能承受大的拉力。 To be laid underground, the cable can bear certain mechanical force, but it can not bear great pulling force.
VV32	VLV32	铜（铝）芯聚氯乙烯绝缘钢丝铠装聚氯乙烯护套电力电缆 Power cable with copper / AL conductor PVC insulation, steel wire armored and PVC sheath	敷设在地下，电缆能承受一定机械外力作用，也可以承受一定的拉力。 To be laid underground, the cable can bear certain mechanical force, and also bear certain pulling force.

注：本公司可根据用户的需要提供阻燃型、耐火型、阻燃耐火型电力电缆产品，订货时在原型号前加“Z”、ZR-、ZA-、ZB-、ZC-、ZD-”表示阻燃型，加“N-”表示耐火型，加“ZAN-、ZBN-、ZCN-、ZDN-”表示阻燃耐火型。

Note: We also produce flame-retardant fire resistant type power cable according to the requirement of the customer. Prefix “Z”、ZR-、ZA-、ZB-、ZC-、ZD-” should be added to the original type of cable in ordering flame retardant cable. Prefix “N-” for fire resistant cable. Prefix “ZAN-、ZBN-、ZCN-、ZDN-” for retardant fire resistant cable.

#### 四、生产范围

#### Production Range

型号 Type		芯数 Core Number	标称截面 mm <sup>2</sup> Nominal cross section area
铜 Cu	铝 Al		
VV	VLV	1	1.5-800
		2	1.5-240
		3	1.5-300
VV22	VLV22	3+1	4-300
		4	4-300
VV32	VLV32	4+1	4-185
		3+2	4-185
		5	4-185

注：1、本公司可根据用户需要，提供五芯结构电缆产品；

2、用于交流系统的单芯铠装电缆的铠装层应采用非磁性金属带绕包。

Note: 1. We also produce cable with five cores according to the requirement of the customer.

2. Non-magnetic metal tape wrapping should be adopted as armored layer for single core armored cable for A.C. system.

## 五、电缆主要技术参数

1. 20°C时导体最大直流电阻值应满足GB/T3956标准中的2类导体的规定；

2. 工频交流耐压试验单芯无屏蔽电缆应将其浸入水中1h，在导体和水之间施加试验电压3.5kV/5min；多芯电缆应依次在每一根绝缘导体对其余导体之间施加试验电压3.5kV/5min，绝缘均无击穿。

标称截面 mm <sup>2</sup> Nominal cross section area	1.5	2.5	4	6	10	16	25	35	50
20°C时导体最大直流电阻 Ω/km The maximum DC resistance value of conductor at 20°C	12.1	7.41	4.61	3.08	1.83	1.15	0.727	0.524	0.387
标称截面 mm <sup>2</sup> Nominal cross section area	70	95	120	150	185	240	300	400	500
20°C时导体最大直流电阻 Ω/km The maximum DC resistance value of conductor at 20°C	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.0470	0.0366

## 六、电缆近似外径及近似重量(表1-表5)

Table 1

芯数×标称截面 mm <sup>2</sup> Core number × nominal cross section area	电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable		电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable	
		VV	VLV		VV22*	VLV22*
1×1.5	5.8	50	/	/	/	/
1×2.5	6.2	62	47	/	/	/
1×4	7.1	87	63	/	/	/
1×6	7.6	110	75	/	/	/
1×10	8.9	166	96	12.4	346	270
1×16	9.9	234	133	13.4	432	331
1×25	11.7	345	186	15.2	574	414
1×35	12.6	450	229	16.2	692	475
1×50	14.6	585	276	17.7	863	553
1×70	16.3	800	366	19.4	1133	700
1×95	18.5	1065	475	21.6	1432	844
1×120	20.2	1328	586	24.0	1705	962
1×150	22.5	1600	702	25.7	2044	1120
1×185	24.8	1990	850	27.8	2438	1296
1×240	27.8	2546	1060	31.0	3057	1570
1×300	30.7	3140	1292	34.2	3926	2070
1×400	34.0	4127	1651	38.0	5084	2608
1×500	38.0	5259	2016	43.0	6295	2936

\* 用于交流系统的单芯铠装电缆的铠装层应采用非磁性金属带绕包；  
单芯钢丝铠装电缆应采用隔磁措施。

## Main Technical parameter of cable

1. The maximum DC resistance value of conductor at 20°C shall meet the requirement of conductor of category 2 stipulated in GB/T3956 standard.

2. Power frequency AC Voltage withstand test For single core cable without shielding, impose test voltage 3.5kV/5 min between conductor and water when be immersed in the water for one hour. For multi-core cable, between each insulated conductor and other conductor, impose test voltage 3.5kV/5min.

## Approximate outer diameter and weight of cable (From table 1 to table 5)

Table 2

芯数×标称截面 mm <sup>2</sup> Core number × nominal cross section area	电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable		电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable	
		VV	VLV		VV22	VLV22
2×1.5	10.4	118	/	/	/	/
2×2.5	11.3	151	118	/	/	/
2×4	13.0	210	159	16.0	424	374
2×6	13.9	263	192	17.1	494	425
2×10	16.5	394	242	19.8	665	497
2×16	18.6	541	334	21.8	845	638
2×25	22.0	794	468	25.3	1154	827
2×35	24.2	1037	585	27.5	1436	982
2×50	20.3	1236	592	23.6	1580	940
2×70	22.7	1647	745	26.0	2210	1302
2×95	26.2	2189	966	29.1	2800	1530
2×120	28.8	2640	1144	32.6	3400	1850
2×150	32.2	3280	1410	36.2	4150	2198
2×185	35.8	4006	1703	39.5	5025	2592



Table 3

芯数×标称截面 mm <sup>2</sup> Core number x nominal cross section area	电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable		电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable	
		VV	VLV		VV22	VLV22
3×1.5	10.6	142	/	/	/	/
3×2.5	11.7	187	139	/	/	/
3×4	13.6	264	189	16.6	489	413
3×6	14.7	335	226	17.7	578	472
3×10	17.4	514	290	20.4	801	560
3×16	19.7	729	418	22.7	1058	743
3×25	23.4	1085	596	26.4	1470	979
3×35	25.8	1430	748	28.8	2148	1370
3×50	25.5	1820	839	28.5	2457	1489
3×70	28.4	2400	1080	31.7	3122	1768
3×95	32.8	3155	1418	36.7	4055	2218
3×120	35.7	3982	1747	39.6	4925	2606
3×150	40.0	4950	2135	44.0	6050	3154
3×185	44.4	6156	2610	48.6	7299	3721
3×240	49.7	7886	3308	53.9	9223	4584
3×300	54.3	9647	4059	58.7	11022	5423

Table 4

芯数×标称截面 mm <sup>2</sup> Core number x nominal cross section area	电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable		电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable	
		VV	VLV		VV22	VLV22
4×2.5	12.2	225	166	/	/	/
4×4	15.0	332	231	18.0	581	480
4×6	16.2	430	270	19.2	703	551
4×10	19.7	641	393	22.7	891	637
4×16	22.0	902	499	25.0	1175	771
4×25	26.0	1438	766	29.0	1998	1347
4×35	28.7	1815	919	31.7	2585	1660
4×50	30.4	2380	1091	33.4	3100	1819
4×70	33.8	3202	1398	37.0	4039	2228
4×95	38.2	4300	1860	41.5	5200	2800
4×120	42.0	5269	2186	45.5	6400	3320
4×150	46.4	6554	2748	49.9	7906	3958
4×185	51.2	8090	3325	54.9	9442	4700
4×240	55.3	10355	4056	59.0	11887	5734
4×300	64.5	12776	4950	68.2	14356	6995

Table 5

芯数×标称截面 mm <sup>2</sup> Core number x nominal cross section area	电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable		电缆近似外径 mm Approximate outer diameter of cable	电缆近似重量 kg/km Approximate weight of cable	
		VV	VLV		VV22	VLV22
3×4+1×2.5	14.5	310	215	17.5	543	447
3×6+1×4	16.1	403	268	19.1	661	526
3×10+1×6	18.9	600	363	21.9	894	625
3×16+1×10	21.6	858	505	24.6	1195	807
3×25+1×16	25.0	1315	693	28.0	1679	1082
3×35+1×16	27.6	1645	834	30.6	2243	1458
3×50+1×25	29.6	2124	996	32.6	2867	1736
3×70+1×50	33.2	2867	1285	36.2	3698	2099
3×95+1×50	38.0	3824	1664	42.1	4796	2636
3×120+1×70	41.5	4784	2060	45.5	5900	3129
3×150+1×70	44.6	5790	2473	48.4	6921	3623
3×185+1×95	49.7	7164	3050	54.2	8437	4369
3×240+1×120	55.9	9414	3842	60.3	11163	5586
3×300+1×150	61.6	11749	4920	66.0	13465	6445

## 七、电荷载流量 (0.6/1kV)

在空气中敷设；

单芯电缆平行敷设时中心距离185mm<sup>2</sup>及以下为电缆直径的2倍；240mm<sup>2</sup>及以上为90mm；

导电线芯最高允许工作温度：70℃，

周围环境温度：30℃。

## Current-loading capacity of cable

In the Air.

Centre distance 185mm<sup>2</sup> and below of single core cable in parallel for installation is 2 times of outer diameter of cable. 240mm<sup>2</sup> and above is 90mm.

Allowed Max.core working temperature:70℃.

Ambient temperature:30℃.

### 不同空气温度下的载流量修正系数

Current-loading capacity correcting coefficient under different air temperature

空气温度℃ Air temperature	20	25	30	35	40	45
修正系数 Correcting coefficient	1.12	1.06	1.00	0.94	0.87	0.79

### 0.6/1KV铜导体PVC绝缘PVC护套阻燃或非阻燃电力电缆在空气中敷设长期连续负荷允许载流量

Long-term and continual current-loading capacity of 0.6/1KV CU/PVC/PVC flame retardant non-flame retardant Cable in the air

标称截面 Nominal cross section area mm <sup>2</sup>	长期连续负荷载流量(A) Long-term and continual current-loading capacity											
	无铠装 Unarmored						铠装 Armour					
	单芯 Single core			2芯 2 cores	3芯 4芯 (3+1)芯	5芯 (4+1)芯 (3+2)芯	单芯 Single core			2芯 2 cores	3芯 4芯 (3+1)芯	5芯 (4+1)芯 (3+2)芯
	2根 2cores	3根 3cores					2根 2cores	3根 3cores				
○○	○○○	○○○				○○	○○○	○○○				
1.5	28	26	23	20	-	-	28	26	23	-	-	-
2.5	36	33	30	26	-	-	36	33	30	-	-	-
4	47	44	39	37	30	-	46	44	39	38	31	32
6	60	56	49	44	37	31	60	56	49	45	38	39
10	83	77	68	61	53	38	83	77	68	62	54	55
16	109	101	89	82	69	54	109	101	89	84	70	71
25	138	128	113	104	89	70	138	128	113	106	91	91
35	173	161	142	127	109	91	173	161	142	130	111	112
50	207	193	170	155	132	111	207	193	170	158	135	137
70	264	246	216	190	167	135	264	246	216	194	170	173
95	322	299	264	242	213	170	322	299	264	247	217	221
120	374	348	307	282	242	217	374	348	307	288	247	250
150	431	401	353	322	282	247	431	401	353	328	287	290
185	495	460	406	368	322	288	495	460	406	378	327	330
240	587	546	481	-	385	328	587	546	481	-	392	398
300	673	626	552	-	431	393	673	626	552	-	439	445
400	794	738	652	-	-	440	794	738	652	-	-	-
500	920	854	754	-	-	-	920	854	754	-	-	-

**0.6/1kV铝导体PVC绝缘PVC护套阻燃或非阻燃电力电缆在空气中敷设长期连续负荷允许载流量**  
**Long-term and continual current-loading capacity of 0.6/1kV AL/PVC/PVC flame retardant non-flame retardant cable in the air**

标称截面 Nominal cross section area mm <sup>2</sup>	长期连续负荷载流量(A) Long-term and continual current-loading capacity											
	无铠装 Unarmored						铠装 Armour					
	单芯 Single core			2芯 2 cores	3芯 4芯 (3+1)芯	5芯 (4+1)芯 (3+2)芯	单芯 Single core			2芯	3芯 4芯 (3+1)芯	5芯 (4+1)芯 (3+2)芯
	2根 2cores ○○	3根 3cores ○○○ ○○○					2根 2cores ○○	3根 3cores ○○○ ○○○				
2.5	28	26	23	21	17	17	28	26	23	-	-	-
4	37	34	30	28	23	23	37	34	30	28	23	23
6	48	45	40	37	30	31	48	45	40	37	30	31
10	63	59	52	48	40	41	63	59	52	48	40	41
16	84	78	69	63	54	55	84	78	69	63	54	55
25	110	102	90	81	69	70	110	102	90	81	69	70
35	132	123	108	99	85	87	132	123	108	99	85	87
50	161	150	132	121	104	106	161	150	132	121	104	106
70	201	187	165	150	132	135	201	187	165	150	132	135
95	247	230	203	190	161	164	247	230	203	190	161	164
120	288	268	236	219	190	194	288	268	236	219	190	194
150	334	311	274	247	219	223	334	311	274	247	219	223
185	385	358	316	288	247	252	385	358	316	288	247	252
240	454	422	372	-	299	305	454	422	372	-	299	305
300	523	486	429	-	339	346	523	486	429	-	339	346
400	621	578	509	-	-	-	621	578	509	-	-	-
500	725	674	595	-	-	-	725	674	595	-	-	-

直埋敷设

单芯电缆非接触敷设时，中心距离为电缆直径的2倍；  
 温度：70℃，土壤温度：25℃；土壤热阻系数：1.0℃·m/w，直埋深度：0.8m，

Cable direct burial laying

Centre distance of single core cable for no contact laying is 2 times of outer diameter of cable.  
 Allowed Max. working temperature of conductor:70℃.Soil temperature:25℃. Heat-resist coefficient is 1.0℃·m/w,depth of burying is 0.8m.

**不同土壤温度下的载流量修正系统**  
**Current-loading capacity correcting coefficient under different soil temperature**

土壤温度℃ Soil temperature	15	20	25	30	35
修正系数 Correcting coefficient	1.11	1.05	1.00	0.94	0.88

**0.6/1kV铜导体PVC绝缘PVC护套阻燃或非阻燃电力电缆在土壤中直埋敷设长期连续负荷允许载流量**  
**Long-term and continual current-loading capacity of 0.6/1kV CU/PVC/PVC flame retardant non-flame retardant cable in the soil directly buried installation**

标称截面 Nominal cross section area mm <sup>2</sup>	长期连续负荷载流量(A) Long-term and continual current-loading capacity											
	无铠装 Unarmored						铠装 Armour					
	单芯 Single core			2芯 2 cores	3芯 4芯 (3+1)芯	5芯 (4+1)芯 (3+2)芯	单芯 Single core			2芯	3芯 4芯 (3+1)芯	5芯 (4+1)芯 (3+2)芯
	2根 2cores ○○	3根 3cores ○○○ ○○○					2根 2cores ○○	3根 3cores ○○○ ○○○				
1.5	29	27	24	26	22	22	29	27	24	26	22	22
2.5	38	35	31	34	29	30	38	35	31	34	29	30
4	49	46	40	44	38	39	49	46	40	44	38	39
6	61	57	50	56	47	48	61	57	50	56	47	48
10	83	77	68	76	65	66	83	77	68	76	65	66
16	105	98	86	100	84	86	105	98	86	100	84	86
25	135	126	111	125	110	112	135	126	111	125	110	112
35	160	149	131	155	130	133	160	149	131	155	130	133
50	195	181	160	185	155	158	195	181	160	185	155	158
70	240	223	197	230	195	199	240	223	197	230	195	199
95	285	265	234	275	230	235	285	265	234	275	230	235
120	325	302	267	310	260	265	325	302	267	310	260	265
150	365	339	299	350	300	306	365	339	299	350	300	306
185	415	386	340	395	335	341	415	386	340	395	335	341
240	480	446	394	-	390	398	480	446	394	-	390	398
300	545	507	447	-	435	444	545	507	447	-	435	444
400	625	581	513	-	-	-	625	581	513	-	-	-
500	710	660	582	-	-	-	710	660	582	-	-	-

**0.6/1kV铝导体PVC绝缘PVC护套阻燃或非阻燃电力电缆在土壤中直埋敷设长期连续负荷允许载流量**  
**Long-term and continual current-loading capacity of 0.6/1kV AL/PVC/PVC flame retardant non-flame retardant cable in the soil directly buried installation**

标称截面 Nominal cross section area mm <sup>2</sup>	长期连续负荷载流量(A) Long-term and continual current-loading capacity											
	无铠装 Unarmored						铠装 Armour					
	单芯 Single core			2芯 2 cores	3芯 4芯 (3+1)芯	5芯 (4+1)芯 (3+2)芯	单芯 Single core			2芯 2 cores	3芯 4芯 (3+1)芯	5芯 (4+1)芯 (3+2)芯
	2根 2cores ○○	3根 3cores ○○○ ○○○					2根 2cores ○○	3根 3cores ○○○ ○○○				
2.5	30	28	25		23	23	30	28	25		23	23
4	39	36	32	26	30	31	39	36	32	26	30	31
6	50	47	41	35	39	40	50	47	41	35	39	40
10	64	60	52	45	50	51	64	60	52	45	50	51
16	83	77	68	59	65	66	83	77	68	59	65	66
25	105	98	86	77	84	85	105	98	86	77	84	85
35	125	116	103	100	100	102	125	116	103	100	100	102
50	150	140	123	120	120	122	150	140	123	120	120	122
70	185	172	152	145	150	153	185	172	152	145	150	153
95	220	205	180	175	185	189	220	205	180	175	185	189
120	250	233	205	210	205	209	250	233	205	210	205	209
150	285	265	234	245	230	235	285	265	234	245	230	235
185	320	298	262	275	260	265	320	298	262	275	260	265
240	375	349	308	310	300	306	375	349	308	310	300	306
300	425	395	349	-	340	347	425	395	349	-	340	347
400	490	456	402	-	-	-	490	456	402	-	-	-
500	560	521	459	-	-	-	560	521	459	-	-	-

#### 八、交货长度

按合同要求长度交货，长度计量误差为±0.5%。

#### Delivery Length

The goods will be delivered according to the contract with length error of ±0.5%.

## 通信电源用阻燃耐火软电缆

### Flame Retardant and Fire Resistant Power Flexible Cable for telecommunication Power Supply Application

本产品适用于通信局站及建筑等输、配电系统中的通信电源用阻燃耐火电缆。产品除具有聚氯乙烯绝缘电缆已有的优良性能外，还具有柔软、易弯曲等特点。

#### 一、生产执行标准

YD/T1173-2010.

Flame retardant and fire resistant cable is used in telecommunication power supply and distribution system of telecommunication agencies/stations/buildings It has not only better performance of PVC insulation power cable, but also advantages of softness and flexibility as well.

#### Executive standard

YD/T1173-2010.

#### 二、型号及名称

#### Type and Description

型号 Type	名称 Description	适用范围 Application
ZA-RV60227IEC02(RV)	铜芯阻燃聚氯乙烯绝缘软电缆 Flexible power cable with Cu core, FR-PVC insulation	架空、管道、 室内、电缆沟、 设备安装、铠 装电缆可地下 直埋 To be installed overhead, indoor in the pipe, cable furnow, equipment, armored cable can be directly buried
	一般用途单芯软导体无护套阻燃电缆 Single flexible core cable without FR sheath	
ZA-RVV60227IEC10(BVV)	铜芯阻燃聚氯乙烯绝缘阻燃聚氯乙烯护套软电缆 Flexible cable with cu core, FR-PVC insulation, FR-PVC sheath.	
ZA-RVV	轻型聚氯乙烯护套套阻燃电缆 Light FR-PVC sheath cable	
ZA-RVV22	铜芯阻燃聚氯乙烯绝缘钢带铠装阻燃聚氯乙烯护套软电缆 Flexible copper with copper core, fire resistant LSZH polyolefin sheath.	
WDNA-RY	铜芯耐火低烟无卤聚烯烃绝缘软电缆 Flexible copper with copper core, fire resistant LSZH polyolefin insulation	
WDNA-RYY	铜芯耐火低烟无卤聚烯烃绝缘低烟无卤聚烯烃护套软电缆 Flexible cable with copper core, fire resistant LSZH polyolefin insulation, LSZH polyolefin sheath	
WDNA-RYY23	铜芯耐火低烟无卤聚烯烃绝缘钢带铠装低烟无卤聚烯烃护套软电缆 Flexible cable with copper core, fire resistant LSZH polyolefin insulation, steel tape armored, LSZH polyolefin sheath	

#### 三、生产范围

#### Production Scope

型号 Type	电压等级 Voltage grade	芯数 Core No.	标称截面 mm <sup>2</sup> Nominal cross section area
ZA-RV、WDNA-RV 60227IEC02(RV)	450/750V	1	1.5-500
ZA-RVV、WDNA-RYY		1	1.5-240
ZA-RVV、WDNA-RYY	600/1000V	2, 3, 3+1, 4, 4+1,	1.5-300
ZA-RVV22、WDNA-RYY23		3+2	10-300
60227IEC10(BVV)	300/500V	2, 3, 4, 5	1.5-35

#### 四、使用条件

#### Working Condition

1. 电缆额定工作电压：300/500V，450/750V，600/1000V；
2. 电缆导体长期允许最高工作温度应不大于70℃；
3. 电缆敷设时最低环境温度应0℃；
4. 电缆允许弯曲半径：非铠装电缆中，阻燃型不小于电缆外径的6倍，耐火型为电缆外径的1.2倍；铠装型电缆，不小于电缆外径的20倍；
5. 短路时（最长持续时间不超过5S），电缆导体的最高工作温度为160℃。

1. Rated working voltage of cable: 300/500V, 450/750V, 600/1000V.
2. Max long-term working temperature of cable conductor: 70°C.
3. Min. ambient temperature for cable installation: 0°C.
4. Allowed bending radius: Unarmored cable, Flame retardant cable is not less than 6 times of OD of cable. Fire resistant cable is not less than 12 times of OD of cable. Armored cable is not less than 20 times of OD of cable.
5. Max. working temperature of cable conductor is 160°C during short circuit (the longest lasting time shall be no more than 5s).

## 五、主要技术参数

## Main Technical Parameter

1. 20°C时导体最大直流电阻值应满足下面的规定：

Max DC resistance value of conductor at 20°C shall meet the requirements of the following table:

标称截面 mm <sup>2</sup> Nominal cross section area	1.5	2.5	4	6	10	16	25	35	50
20°C时导体最大直流电阻 Ω/km Max. DC resistance of conductor at 20°C	13.3	7.98	4.95	3.30	1.91	1.21	0.780	0.554	0.386
标称截面 mm <sup>2</sup> Nominal cross section area	70	95	120	150	185	240	300	400	500
20°C时导体最大直流电阻 Ω/km Max. DC resistance of conductor at 20°C	0.272	0.206	0.161	0.129	0.106	0.0801	0.0641	0.0495	0.0391

2. 70°C时最小绝缘电阻

Min insulation resistance at 70°C

标称截面 mm <sup>2</sup> Nominal cross section area	70°C时最小绝缘电阻 MΩ, km Min insulation resistance at 70°C	标称截面 mm <sup>2</sup> Nominal cross section area	70°C时最小绝缘电阻 MΩ, km Min insulation resistance at 70°C
1.5	0.010	70	0.0032
2.5	0.009	95	0.0032
4	0.007	120	0.0029
6	0.006	150	0.0029
10	0.0056	185	0.0029
16	0.0046	240	0.0028
25	0.0044	300	0.0028
35	0.0038	400	0.0026
50	0.0037	500	0.0026

试验条件：  
① 试验长度：5m；  
② 浸水时间：1h；  
③ 水温：70°C。

Testing condition  
Testing length: 5m.  
Time for immersion in the water is one hour.  
Temperature of water is 70°C.

3. 工频交流耐压试验成品电缆应经受下表规定的交流50Hz 耐压试验而不应击穿。

A.C. voltage withstand test  
The finished cable shall bear A.C. voltage test of 50Hz listed in the following table without puncture.

电缆芯数 Core No.	试验方法 Testing method	试样长度 m Sample length	电压 V Voltage		持续时间 Lasting time
			额定电压 Rated voltage	试验电压 Testing voltage	
单芯 Single core	浸水1h Immersing in the water for 1h	制造长度 Manufacturing length	450/750	2500	5min
多芯及铠装 Multi-core and armoring	相间 Interphase		600/1000	3500	

\*适用于RV型及RVZ型。

\*Suitable for RV type and RVZ type

## 六、电缆近似外径及载流量

## Approximate outer diameter and current-loading capacity of cable

与同规格的普通聚氯乙烯绝缘聚乙烯护套电力电缆相比，电缆的外径一般增加：导体截面95mm<sup>2</sup>及以下，外径增加2~10mm；导体截面为120mm<sup>2</sup>及以上，外径增加12~20mm；电缆的重量一般增加4%~10%。软电力电缆允许的载流量可参照同规格VV系列电力电缆的载流量值，下降6%~10%。

By comparing with common power cable of the same specification with PVC insulation and sheath. The outer diameter of the cable is generally increased: cross section area of conductor is 95mm<sup>2</sup> and below the diameter increased 2~10mm, cross section area of conductor is 120mm<sup>2</sup> and above the diameter increased 12~20mm. The weight of the cable is generally increased by 4%~10%. The allowable capacity of the soft power cable can be reduced by 6%~10% according to the value of the same specification VV series power cable.

## 七、交货长度

## Delivery Length

根据双方协议，允许任何长度的电缆交货。长度计量误差不得超过±0.5%。

Delivery length of cable depends on both agreements with length error allowance of ±0.5%.

# 金属屏蔽电力电缆

## Metallic Shielding Power Cable

本产品适用于额定电压0.6/1kV及以下的电力线路中作输电能用。产品具有较强的电磁干扰、抗雷击及均衡电位，改善供电品质的特性，特别适宜计算机中心、航空航天监控中心，智能大楼等精密电子装置场所。

It is used for power transmission on power lines of rated voltage 0.6/1kV or lower. It has strong electromagnetic interference, lightning and equilibrium potential, and improves the quality of power supply. It is especially suitable for computer center, aeronautics and astronautics monitoring center, intelligent building, etc.

### 一、生产执行标准

GB/T12706.1-2008

Executive standard

GB/T12706.1-2008

### 二、型号名称

Type and Description

型号 Type		名称 Description
铜 Cu	铝 Al	
VVP VVP22	VLVP VLVP22	铜、铝芯聚氯乙烯绝缘金属屏蔽（铜带铠装）聚氯乙烯护套电力电缆 Power cable with Cu/Al core, PVC insulation, metallic shielding(steel tape armor), PVC sheath.
YJVP YJV22	YJLVP YJLVP22	铜、铝芯交联聚乙烯绝缘金属屏蔽（铜带铠装）聚氯乙烯护套电力电缆 Power cable with Cu/Al core, XLPE insulation, metallic shielding(steel tape armor), PVC sheath.

注：1、该产品可按用户的使用要求，设计成具有阻燃性能或耐火性能的产品。  
订货时只需在原型号前加“ZR-、ZA-、ZB-、ZC-、ZD-”表示阻燃型，加“N-”表示耐火型，加“ZAN-、ZBN-、ZCN-、ZDN-”表示阻燃耐火型；  
2、电缆的金属屏蔽可按用户要求有两种形式：金属丝编织或金属带铠装。

Note 1 We also produce cable with flame retardant or fire resistant performance according to the requirement of customer's. Prefix "ZR-, ZA-, ZB-, ZC-, ZD-" shall be added to the original type for flame retardant cable, "N" added for fire resistant cable and "ZAN, ZBN, ZCN, ZDN" added for flame retardant and fire resistant cable.  
2. There are two kinds of metallic shielding according to the requirement of customer's, metallic wire braiding or metallic tape wrapping.

### 三、规格

Specification

型号 Type		芯数 Core number	标称截面 mm <sup>2</sup> Nominal cross section area
铜 Cu	铝 Al		
VVP YJVP	VLVP YJLVP	1	4-300
VVP VVP22 YJVP YJVP22	VLVP VLVP22 YJLVP YJLVP22	2	4-185
		3	4-300
		3+1	
		4	4-185

### 四、使用条件

Working Condition

- 导体最高长期允许工作温度：  
聚氯乙烯绝缘为70℃；  
交联聚乙烯绝缘为90℃；
- 电缆短路时（最长持续时间不超过5S），导体的最高温度不超过：  
聚氯乙烯绝缘为160℃；  
交联聚乙烯绝缘为250℃；
- 敷设时环境温度应不低于0℃；
- 电缆允许弯曲半径为：  
铠装电缆不小于电缆外径的20倍；  
非铠装电缆不小于电缆外径的15倍；  
软芯导体电缆不小于电缆外径的10倍。

- Max long-term working temperature allowed by conductor is 70℃ for cable with PVC insulation, 90℃ for cable with XLPE insulation.
- Max temperature of conductor is no more than 160℃ for cable with PVC insulation, 250℃ for cable with XLPE insulation during short circuit (The longest lasting time is no more than 5s).
- Environment temperature for installation is not lower than 0℃.
- Bending radius allowed by cable is no less than 20 times of outer diameter of cable for armored cable, it is less than 15 times of outer diameter of cable for inarmored cable, no less than 10 times of outer diameter of cable for soft conductor.

## 五、电缆近似外径

VVP型、VLVP型电缆外径分别在VV型、VLV型电缆外径的基础上增加1~1.5mm。

YJVP型、YJLVP型电缆外径分别在YJV型、YJLV型电缆外径的基础上增加1~1.5mm。

VV22P型、VLV22P型电缆外径分别在VV22型、VLV22型电缆外径的基础上增加1~1.5mm。

YJV22P型、YJLV22P型电缆外径分别在YJV22型、YJLV22型电缆外径的基础上增加1~1.5mm。

## Approximate Outer Diameter of Cable

Outer diameter value of VVP type and VLVP type cable should be added by 1~1.5mm on the basis of that of VV type and VLV type cable.

Outer diameter value of YJVP type and YJLVP type cable should be added by 1~1.5mm on the basis of that of YJV type and YJLV type cable.

Outer diameter value of VV22P type and VLV22P type cable should be added by 1~1.5mm on the basis of that of VV22 type and VLV22 type cable.

Outer diameter value of YJV22P type and YJLV22P type cable should be added by 1~1.5mm on the basis of that of YJV22 type and YJLV22 type cable.

## 六、主要技术参数

1. 20°C时导体直流电阻，参见0.6/1kV聚氯乙烯绝缘及护套电力电缆；

2. 绝缘电阻；

## Main Technical Parameter

1. DC resistance of conductor at 20°C, see 0.6/1kV PVC insulated and sheath power cable.

2. Insulated resistance.

序号 No.	性能 Performance	聚氯乙烯绝缘 PVC insulation	交联聚乙烯绝缘 XLPE insulation
1	体积电阻率(20°C) 电缆工作温度时 Volume resistance ratio(20°C) under cable working temperature	10 <sup>13</sup> 10 <sup>13</sup>	- 10 <sup>13</sup>
2	绝缘电阻常数(20°C) 电缆工作温度时 Insulation resistance constant (20°C) under cable working temperature	36.7 0.037	- 3.67

3. 交流电压试验成品电缆经受交流50Hz、5min、3.5KV的电压试验绝缘应无击穿；

4. 耐火型电缆的耐火特性应符合IEC60331或GB/T19666中的A类或B类耐火试验要求；

5. 阻燃型电缆的阻燃性能应符合IEC60332或GB/T18380.3 标准中规定的A、B或C三类中任一类别阻燃性能要求。

3. Finished cable should endure A.C voltage test of 3.5kV, AC 50Hz for 5min without puncture.

4. Fire resistant performance of fire resistance cable should meet testing requirement of category stipulated in IEC60331 or GB/T19666-2005 standard.

5. Flame retardant performance of Flame retardant cable should meet testing requirement of category A or B or C stipulated in IEC60332 or GB/T18380.1.2.3standard.

## 七、交货长度

1. 根据双方协议，允许任何长度的电缆交货；

2. 长度计量误差不超过±0.5%。

## Delivery Length

1. Delivery length of cable depends on both agreements.

2. The measurement error of length is no more than ±0.5%.



# 变频电机用交联聚乙烯绝缘电缆（变频电缆）

## XLPE Insulation Cable for Variable Frequency Motor Application(Frequency Converter Cable)

变频电缆主要用于变频电源和变频电机之间连接用的电缆，以及额定电压1KV及以下的输配电线路中，作输送电能用。尤其适用于造纸、冶金、纺织、金属加工、矿山、铁路和食品加工等行业。

### 一、使用条件

1. 额定电压U0/U : 0.6/1kV ;
2. 电缆导体长期允许最高温度为90°C，短路时最高温度为250°C（最长持续时间为5秒）；
3. 安装敷设环境温度不低于0°C，固定敷设时环境温度不低于-10°C；
4. 电缆允许最小弯曲半径不小于15D（D-电缆外径，mm）。

### 二、产品性能

1. BPYJVP、BPYJVP2、BPYJVPR、BPYJVP2R、BPYJVTP2、BPYJVPP2R、BPYJVP1P2R、BPYJVPP2R型设计采用符合GB/T3956规定的铜导体，原型号前加ZA-、ZB-、ZC-、ZD-表示阻燃型；
2. 交联聚乙烯绝缘，耐高温耐老化性好；
3. 低传输阻抗，电磁兼容性好；
4. 低工作电容；
5. 良好的抗干扰和低辐射性能；
6. 对称的三芯电缆结构设计，具有比四芯电缆更好的传输性能。

### 三、主要技术参数

1. 20°C时导体最大直流电阻；

导体标称截面 mm <sup>2</sup> Nominal cross section area of conductor	20°C时导体最大直流电阻Ω/km Max DC resistance of conductor at 20°C		导体标称截面 mm <sup>2</sup> Nominal cross section area of conductor	20°C时导体最大直流电阻Ω/km Max DC resistance of conductor at 20°C	
	绞合导体 Stranded conductor	软导体 Flexible conductor		绞合导体 Stranded conductor	软导体 Flexible conductor
0.5	36.0	39.0	25	0.727	0.780
0.75	24.5	26.0	35	0.524	0.554
1.0	18.1	19.5	50	0.387	0.386
1.5	12.1	13.3	70	0.268	0.272
2.5	7.41	7.98	95	0.193	0.206
4	4.61	4.95	120	0.153	0.161
6	3.08	3.30	150	0.124	0.129
10	1.83	1.91	185	0.0991	0.106
16	1.15	1.21	240	0.0754	0.0801

Frequency Converter cable is mainly used as the connection cable between frequency converter power supply and frequency converter motor. And it is also used to transmit power on distribution line of rated voltage 1kv or lower. It is specially used in the field of paper-making, metallurgy, textile mill, metalworking, mine, railway and food processing etc.

### Working Condition

1. Rated voltage U0/U 0.6/1kV
2. Max temperature of cable conductor for Long-term working is 90°C. Max. working temperature of cable conductor is 250°C during short circuit (the longest lasting time shall be no more than 5 seconds).
3. Environment temperature for installing is no less than 0°C, the ambient temperature of fixed laying is not less than -10°C.
4. Min bending radius allowed by cable is no less than 15D. (D means outer diameter of cable with unit "mm")

### Product Performance

1. Design for type BPYJVP、BPYJVP2、BPYJVPR、BPYJVP2R、BPYJVTP2、BPYJVPP2R、BPYJVP1P2R、BPYJVPP2R use copper conductor which meets the requirements of GB/T3956 standard.
2. XLPE insulation, good heat resistance and good weatherability.
3. Low transmission impedance; good performance of electromagnetic compatibility
4. Low working capacitance
5. Good performance of interference resistance and low radiation
6. The symmetrical 3 core cable is designed to have better transmission performance than the 4core cable.

### Main Technical Parameter

1. Max DC resistance of conductor at 20°C

## 2. 交流电压试验

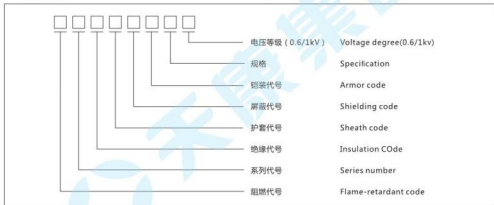
电压应依次施加在每一绝缘导体对其余导体和绕包金属层之间施加试验电压3500V/5min, 绝缘应无击穿。试验应在环境温度下进行。

## A.C. Voltage Test

The voltage should be applied in turn to the test voltage 3500V/5min between the other conductors and the rest of the conductor and the wrapping metal layer without puncture of insulation. And test will be done at the environment temperature.

## 四、型号说明

## Type Introduction



名称 Item	代号 Code	说明 Description
系列代号 Series No.	BP	变频电缆 Frequency converter cable
绝缘代号 Insulation No.	YJ	交联聚乙烯绝缘 XLPE insulation
护套代号 Sheath Code	V WD	聚氯乙烯护套 PVC sheath 无卤低烟聚烯烃护套 LSZH polyolefin sheath
屏蔽代号 Shielding Code	TP2 PP2 P1P3	铜丝编织+铜带绕包屏蔽 Copper wire twine+copper tape wrapped shielding 铜丝编织屏蔽+铜带绕包 Copper wire braided shielding+copper tape wrapped 镀锡铜丝编织屏蔽+铜带绕包 Tinned copper wire braid shielding+Al. Polyester tape wrapped
铠装代号 Armour Code	22 23	钢带铠装聚氯乙烯护套 Steel tape Armour, PVC sheath 钢带铠装聚乙烯护套/钢带铠装聚乙烯护套 Steel tape Armour, polyolefin sheath; steel tape armored, PE sheath
阻燃代号 Flame retardant Code	ZR	阻燃型 (C类) Flame-retardant type (Category C)

## 五、生产范围

## Production Scope

型号 Type	芯数 Core No.	导体标称截面 mm <sup>2</sup> Nominal cross section area of conductor
BPYJVP, BPYJVP2, BPYJVTP2	3, 3+1	2.5-240
BPYJVP(R), BPYJVP2(R), BPYJVP1P2(R), BPYJVPP2(R), BPYJVPP2(R), BPYJVP1P2(R)	3+3	主芯芯截面: 2.5-240 Cross section area of main core: 2.5-240 副芯芯截面: 0.5-35 Cross section area of auxiliary core: 0.5-35

注: 可根据用户需要提供铠装结构变频电缆。

Note: We also produce frequency converter cable with armored structure according to the requirement of customer.

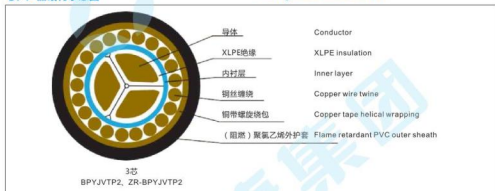
## 六、型号名称

## Type and Description

型号 Type	名称 Description
BPYJVP1(R)	铜芯交联聚乙烯绝缘聚氯乙烯护套铜丝编织屏蔽变频(软)电缆 Frequency converter (flexible) cable with copper core, XLPE insulation, copper wire braid shielding, PVC sheath
BPYJVP2(R)	铜芯交联聚乙烯绝缘聚氯乙烯护套铜带绕包屏蔽变频(软)电缆 Frequency converter (flexible) cable with copper core, XLPE insulation, copper tape wrapped shielding, PVC sheath
BPYJVTP2	铜芯交联聚乙烯绝缘聚氯乙烯护套铜丝编织+铜带绕包屏蔽变频电缆 Frequency converter cable with copper core, XLPE insulation, copper wire twine plus copper tape wrapped shielding, PVC sheath
BPYJVPP3(R)	铜芯交联聚乙烯绝缘聚氯乙烯护套铜丝编织屏蔽+铝箔绕包屏蔽变频(软)电缆 Frequency converter flexible cable with copper core, XLPE insulation, AL polyester wrapped plus copper wire braided shielding, PVC sheath
BPYJVP1P3(R)	铜芯交联聚乙烯绝缘聚氯乙烯护套铜带绕包屏蔽+铝箔绕包屏蔽变频(软)电缆 Frequency converter flexible cable with copper core, XLPE insulation, AL polyester wrapped plus copper tape wrapped shielding, PVC sheath
BPYJVPP2(R)	铜芯交联聚乙烯绝缘聚氯乙烯护套铜丝编织屏蔽+铜带绕包变频(软)电缆 Frequency converter flexible cable with copper core, XLPE insulation, copper wire braided plus copper tape wrapped shielding, PVC sheath
BPYJVP1P2(R)	铜芯交联聚乙烯绝缘聚氯乙烯护套铜带绕包屏蔽+铜带绕包变频(软)电缆 Frequency converter flexible cable with copper core, XLPE insulation, tinned copper wire braided plus copper tape wrapped shielding, PVC sheath

## 七、产品结构示意图

## The Figure of Cable Structure



## 八、外径尺寸

## Dimension of Outer Diameter

1. BPYJVP, BPYJVTP2, BPYJVP2, 3+1芯;

1. BPYJVP, BPYJVTP2, BPYJVP2, 3+1 cores.

规格 Specification	近似外径 mm Approximate OD	重量 kg/km Weight	电缆载流量 A Current-loading capacity of cable
3×4+1×2.5	16.0	334	34
3×6+1×4	17.3	430	45
3×10+1×6	20.2	627	53
3×16+1×10	22.7	833	84
3×25+1×16	27.4	1308	109
3×35+1×16	28.9	1718	132
3×50+1×25	30.2	3059	159
3×70+1×35	32.8	3445	195
3×95+1×50	34.9	4172	237
3×120+1×70	39.6	5055	274
3×150+1×70	44.2	5410	310
3×185+1×95	48.5	7062	355
3×240+1×120	54.6	9811	416

2. BPYJVPR, BPYJVPR2R, BPYJVPP2R, BPYJVP1P

2. BPYJVPR, BPYJVPR2R, BPYJVPP2R, BPYJVP1P2R, 3+3 cores.

2R, 3+3芯;

规格 Specification	近似外径 mm Approximate OD	重量 kg/km Weight	电缆载流量 A Current-loading capacity of cable
3×2.5+3×0.5	12.5	232	26
3×4+3×0.75	14.0	330	34
3×6+3×1.0	5.4	422	45
3×10+3×1.5	19.6	621	53
3×16+3×2.5	22.7	820	84
3×25+3×4	28.0	1310	109
3×35+3×6	29.4	1723	132
3×50+3×10	36.3	3075	159
3×70+3×10	40.0	3454	195
3×95+3×16	45.5	4180	237
3×120+3×16	50.4	5100	274
3×150+3×25	55.5	5432	310
3×185+3×25	60.6	7096	355
3×240+3×35	69.0	10221	416

## 九、交货长度

根据双方协议长度供货。

## Delivery Length

According to the agreement between both parties.

# 耐高温(阻燃)电力电缆

## High Temperature Resistant (Flame Retardant) Power Cable

本产品适用于额定电压0.6/1kV及以下高温范围和恶劣环境下,作电气设备电能传输线。

It is used as power transmission cable for electric equipments of rated voltage 0.6/1kV or lower in bad environment or that with high temperature.

### 一、生产执行标准

TICW2-2009.

### Executive standard

TICW2-2009.

### 二、使用特性

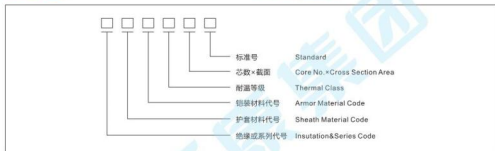
1. 额定电压U<sub>0</sub>/U: 0.6/1kV ;
2. 电缆允许最高工作温度: 氟塑料绝缘为200°C ;
3. 短路时(最长持续时间不超过5S)电缆导体的最高温度不超过250°C ;
4. 电缆敷设温度应不低于-15°C ;
5. 电缆的弯曲半径如下: 单芯电缆, 其弯曲半径不小于电缆外径的20D ; 三芯电缆, 其弯曲半径不小于电缆外径的15D ;
6. 氟塑料绝缘及护套型电力电缆具有优异的耐化学腐蚀性、耐高温及阻燃性。

### Operational performance

1. Rated voltage U<sub>0</sub>/U: 0.6/1kV.
2. Max. working temperature allowed by cable is 200°C for cable with fluoroplastic insulation.
3. Max temperature of cable conductor is no more than 250°C during short circuit (The longest lasting time is no more than 5s).
4. Temperature for installation is no less than -15°C.
5. Bending radius of cable as follows:  
It is no less than 20 times that of cable outer diameter for cable with single core. It is no less than 15 times that of cable outer diameter for cable with 3 cores.
6. Power cable with fluoroplastic insulation and sheath has good features of chemical corrosion resistance, high temperature resistance and flame retardance.

### 三、型号说明

### Model Explanation



项目 Item	代号 Code	说明 Explanation
绝缘 Insulation	F	聚全氟乙丙烯绝缘 (F46) 电力电缆 Polyfluoroethylene propylene insulation(F46)power cable
护套 Sheath	F	聚全氟乙丙烯绝缘 (F46) Polyfluoroethylene propylene insulation (F46)
铠装 Armoring	22	钢带铠装 Steel tape armor
耐温系数 Crade of heat proof	200	最高工作温度 200°C The Max. operating temperature 200°C

### 三、电缆的型号名称

### Type and Description

#### 1. 电缆的型号名称如表1

#### Type and Description in Table 1

型号 Type	名称 Description
FF	聚全氟乙丙烯绝缘护套耐高温电力电缆 High temperature resistant power cable with F46 insulation and sheath.
FF22	聚全氟乙丙烯绝缘护套铜带铠装耐高温电力电缆 High temperature resistant power cable with F46 insulation and sheath, steel tape armoring.
(ZR)-FG	聚全氟乙丙烯绝缘(阻燃)硅橡胶护套耐高温电力电缆 High temperature resistant power cable with F46 insulation (flame retardant) and silicon rubber sheath.
(ZR)-FG22(62)	聚全氟乙丙烯绝缘(阻燃)硅橡胶护套铜带铠装耐高温电力电缆 High temperature resistant power cable with F46 insulation (flame retardant), silicon rubber sheath and steel tape armoring.

注: 1. 氟塑料和硅橡胶绝缘电缆不推荐采用铠装结构, 如采用铠装结构, 优先采用金属丝编的铠装, 金属丝采用铜丝、镀锌铁丝等;  
2. 型号中“22”表示铜带铠装, 如需钢丝铠装结构应将型号中的“22”改为“32”即可;  
3. 型号中的“62”表示非磁性材料铠装。

Note: 1. Fluoroplastic and silicone rubber insulation cable don't recommend using armored structure. If armored structure is necessary, priority to metallic wire braiding and metallic wire use copper wire, galvanized steel wire etc.  
2. "22" in cable type means steel tape armour, if steel wire armour is needed, just change "22" to "32".  
3. "62" in cable type means non-magnetic material armour.

### 四、电缆规格

### Specication of Cable

1. 电缆规格表示为芯数×导体标称截面 $\text{mm}^2$ , 其芯数及导体标称截面如表2,

"core number \* nominal cross section" stands for cable specification. Please see the following table 2 for core number and nominal cross section.

型号 Type	芯数 Core number	标称截面 $\text{mm}^2$ Nominal cross section area
FF, FF62, FG	1	1.5~185
FF, FF22	2, 3, 4, 5, 3+2, 3+1	1.5~70
FG, FG22		1.5~240

### 五、技术参数

### Technical Parameter

- 20°C导体直流电阻应符合GB/T3956标准规定;
- 电缆应经受3500V交流耐压试验5min绝缘不击穿。

1. DC resistance of conductor at 20°C shall meet the requirement of GB/T3956 standard.  
2. Cable shall bear AC voltage test of 3500V for 5min without puncture of insulation.

### 六、交货长度

### Delivery length

允许根据双方协议长度交货;  
长度计量误差不得超过 $\pm 0.5\%$ 。

Delivery length of cable depends on both agreements with length error allowance of  $\pm 0.5\%$ .

# 硅橡胶(阻燃)电力电缆

## Power Cable with Silicon Rubber Insulation

本产品适用于额定电压0.6/1kV及以下的高温范围和恶劣环境下,作电气设备电能传输线。它具有优良的耐高温、阻燃、耐辐射、耐老化、耐臭氧、防水等特性,并具有很好的耐寒性、耐候性。

It is used as power transmission cable of electric equipments of rated voltage 0.6/1kV or lower in bad environment or that with high temperature. It has good features of high temperature resistance, flame resistance, radiation resistance, aging resistance, ozone resistance, water proof, freezing resistance, weather resistance etc.

### 一、生产执行标准

TICW4-2009.

### Executive standard

TICW4-2009.

### 二、使用特性

1. 额定电压U0/U:600/1000V;
2. 电缆允许工作温度范围-60℃~+180℃;
3. 短路时(最长持续时间不超过5S)电缆导体的最高温度不超过350℃;
4. 电缆敷设温度应不低于-20℃;
5. 有铠装或屏蔽结构的电缆弯曲半径不小于电缆外径的12倍,无铠装或屏蔽结构的电缆弯曲半径不小于电缆外径的6倍。

### Performance for Usage

1. Rated voltage U0/U:600/1000V
2. Working temperature allowed by cable is -60°C ~ +180°C.
3. Max temperature of cable conductor is no more than 350°C during short circuit (The longest lasting time is no more than 5s.)
4. Temperature for installing is no less than -20°C.
5. Bending radius of cable with armouring or shielding structure is not less than 12 times of cable outer diameter, for cable without armouring or shielding structure, bending radius is not less than 6 times of cable outer diameter.

### 三、电缆型号名称

1. 电缆型号名称如表1

### Type and Description

Type and Description Listed in the Following Table 1.

型号 Type	名称 Description
GG	硅橡胶绝缘硅橡胶护套电力电缆 Power cable with silicon rubber insulation and sheath
GG2G	硅橡胶绝缘硅橡胶护套钢带铠装电力电缆 Power cable with silicon rubber insulation and sheath, steel tape armor
GG3G	硅橡胶绝缘硅橡胶护套细钢丝铠装电力电缆 Power cable with silicon rubber insulation and sheath, fine wire armor

注:阻燃型应在表中型号前加“ZA、ZB、ZC、ZD”。

NOTE: The flame retardant type should be added "ZA, ZB, ZC, ZD" before the model in the table.

### 四、规格范围

1. 电缆规格用导体芯数×导体标称截面mm<sup>2</sup>表示,如表2

### Speciation

"core number \* nominal cross section area" stands for cable specification. Please see the following table 2.

型号 Type	芯数 Core number	标称截面mm <sup>2</sup> Nominal cross section area	导体种类 Type of conductor
GG	1, 2, 3, 4, 5, 3*2, 3*1	单芯: 1.5~300 多芯: 1.5~240	5类导体
GG2G		1.5~500 for single core 1.5~240 for multi-core	Class 5 conductor
GG3G			

### 五、技术参数

1. 成品电缆导体20℃时直流电阻应满足GB/T3956标准要求;
2. 成品电缆应经受工频交流试验电压3500V/5min电压试验,绝缘无击穿。

### Technical parameter

1. DC resistance of finished cable conductor at 20°C shall meet the requirement of GB/T3956 standard.
2. Finished cable shall bear A.C voltage test of 3500V under power frequency for 5 minutes without puncture of insulation.

### 六、交货长度

- 允许根据双方协议长度交货;  
长度计量误差不超过±0.5%。

### Delivery Length

Delivery length of cable depends on both agreements with length error allowance of ±0.5%.

## 硅橡胶(阻燃)扁电力电缆

### Silicon Rubber (flame retardant) Flat Power Cable

该电缆广泛应用于起重、运输、机械、电气、钢铁、医药、冶金、港口、矿山、物流、仓储等行业的0.6/1kV及以下各种移动动力装置的电源连接及控制、信号、照明等。

It is used as power connection & controlling & signal & lighting of various moving power equipment, in the field of lifting, transportation, machine, electronic, steel, medicine, metallurgy, port, mine and storage etc.

#### 一、生产执行标准

企业标准。

Executive standard

Enterprise standard.

#### 二、使用特性

1. 额定电压U<sub>0</sub>/U为0.6/1kV；
2. 电缆允许工作温度范围：  
硅橡胶绝缘-60℃~+180℃；  
氟塑料绝缘-60℃~+200℃；
3. 短路时(最长持续时间不超过5S)电缆导体的最高温度不超过350℃；
4. 电缆敷设温度应不低于-20℃；
5. 电缆最小弯曲半径为电缆小边长度的10倍。

Performance for Usage

1. Rated voltage U<sub>0</sub>/U:0.6/1kV
2. Working temperature allowed by cable  
-60℃~+180℃ for cable with silicon rubber insulation;  
-60℃~+200℃ for cable with fluoroplastics insulation
3. Max temperature of cable conductor is no more than 350℃ during short circuit(the longest lasting time is no more than 5s).
4. Temperature for installing is no lower than -20℃.
5. Min. bending radius of cable is 10 times that of small border length of cable.

#### 三、电缆的型号名称

1. 电缆型号名称如表1:

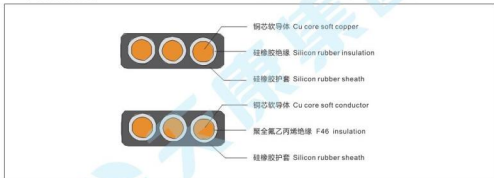
Type and Description

Type and description of cable listed in table 1

型号 Type	名称 Description
(ZR)-YGGGB	硅橡胶绝缘硅橡胶护套(阻燃)扁电力电缆 (Flame retardant)Flat power cable with silicon rubber insulation and sheath
(ZR)-YF46GRB	聚全氟乙丙烯绝缘硅橡胶护套(阻燃)扁电力电缆 (Flame retardant)Flat power cable with polyfluoroethylene propylene insulation and silicon rubber sheath

2. 电缆结构图如下:

The cable structure diagram is as follows





#### 四、主要性能参数

#### Main Performance Parameter

1、在20°C时导体直流电阻应符合下表规定：

DC resistance of conductor at 20°C shall meet the requirements of the following table:

截面mm <sup>2</sup> Cross section area	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
Romax (Ω/km)	26.0	19.5	13.3	7.98	4.95	3.30	1.91	1.21	0.780	0.554	0.386	0.272	0.206	0.161	0.129	0.106	0.0801

2、规格及参考数据如下表规定：

Specification and data for reference stipulated in the following table:

标称截面mm <sup>2</sup> Nominal cross section area	导体直径 mm Conductor diameter	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	间距 mm Space	电缆(参考)外径 mm Cable OD	(参考)重量 (kg) Weight
4×1.0	1.29	0.8	1.6	1.0	17.8×6.1	225
6×1.0	1.29	0.8	1.6	1.0	25.6×6.1	345
8×1.0	1.29	0.8	1.6	1.0	33.4×6.1	360
4×1.5	1.56	1.0	1.6	1.0	20.5×6.8	291
6×1.5	1.56	1.0	1.6	1.0	29.6×6.8	360
8×1.5	1.56	1.0	1.6	1.0	38.8×6.8	469
4×2.5	2.05	1.0	1.6	1.5	24.5×8.1	333
6×2.5	2.05	1.0	1.6	1.5	37×8.1	536
8×2.5	2.05	1.0	1.6	1.5	48.1×8.1	608
4×4	2.60	1.0	1.7	1.7	30.5×8.4	457
6×4	2.60	1.0	1.7	1.7	44×8.4	790
4×6	3.15	1.0	1.9	2.0	33.8×9.5	615
6×6	3.15	1.0	1.9	2.0	48.8×11.5	1098
3×10	4.40	1.0	2.4	2.4	31.7×11.5	702
8×10	4.40	1.0	2.4	2.4	59.8×11.5	1428
3×25	6.81	1.2	2.7	2.8	41.8×15	1645
6×25	6.81	1.2	2.7	2.8	79.5×15	3325
4×3.5	7.9	1.2	3.0	3.0	48.5×16.7	2181
3×5.0	9.2	1.4	3.1	3.4	55×19.2	2681
4×5.0	9.2	1.4	3.1	3.4	70.4×19.2	3158
3×7.0	12.6	1.4	3.3	3.8	59.1×22.9	2878
3×12.0	15.4	1.6	3.7	4.2	74.8×30.4	5157
3×15.0	16.4	1.8	4.1	4.4	80.2×30.6	6171

3、成品电缆线芯的电压试验

Voltage test of Finished Cable Conductor

成品电缆的电压试验应承受交流50HZ，试验电压3500V，

Finished cable shall bear voltage test of 3500v, AC 50Hz for

5min，绝缘无击穿。

5 minutes without puncture of insulation.

#### 五、交货长度

#### Delivery Length

允许根据双方协议长度交货；

Delivery length of cable depends on both agreements with length error allowance of ±0.5%.

长度计量误差不超过±0.5%。

# 具有屏蔽和耐化学品功能的电缆

## Cable with Shielding and Chemical Medicine Resistance

本产品适用于炼油厂、石油化工厂及一般化工厂中经常会接触到芳香族溶剂的输配电线路或电气控制线路，电缆具有较好的耐化学药品、油类、溶剂腐蚀能力，同时具有防磁场、静电干扰的能力，电缆可用于直埋和穿管敷设。

The cable is widely used in the field of refinery, petrochemical industry and common chemical plant for transmission & distribution lines or electrical control lines, which often contact with aromatic solvent. The cable has good features of chemical medicine resistance, oil proof; dissolvent corrosive resistance, magnetic field proof and static interfere. The cable can be laid underground or be laid in pipe.

### 一、生产执行标准

参照GB/T9330-2008及GB/T12706-2008标准。

### Executive standard

Refer to GB/T9330-2008 or GB/T12706-2008 standard.

### 二、工作条件

1. 电缆额定电压 $U_0/U=0.6/1kV$ ；
2. 电缆导体的长期允许工作温度为 $90^{\circ}C$ ；
3. 电缆安装时的最小弯曲半径：单芯电缆 $\geq 25D$ ；多芯电缆 $\geq 20D$ （ $D$ 为电缆外径）；
4. 敷设电缆时的环境温度不低于 $0^{\circ}C$ 。

### Working condition

1. Rated voltage  $U_0/U$  is 0.6/1kV.
2. Long-term working temperature of cable conductor is  $90^{\circ}C$ .
3. When installing cables, min bending radius is more than 25D for single core cable; more than 20D for multi-core cable. ( $D$  means outer diameter of cable)
4. Environment temperature for installation is no less than  $0^{\circ}C$ .

### 三、型号名称

### Type & Name

电缆型号 Cable type		电缆名称 Cable name
铜芯 Copper core	铝芯 Aluminum core	
LH-YJA	LH-YJLA	铜芯或铝芯交联聚乙烯绝缘涂塑铝带粘接护套，具有屏蔽和耐化学品功能的电力电缆 Power cable with copper core or aluminum core, XLPE insulation, plastic coated aluminum tape bonded sheath.
LH-YJA23	LH-YJLA23	铜芯或铝芯交联聚乙烯绝缘涂塑铝带粘接内护套镀锌钢带铠装聚乙烯外护套，具有屏蔽和耐化学品功能的电力电缆 Power cable with copper core or aluminum core, XLPE insulation, plastic coated aluminum tape bonded inner sheath, galvanized steel tape armoring, PE outer sheath, with the function of shielding, chemical medicine resistance.
LH-KYJA	/	铜芯交联聚乙烯绝缘涂塑铝带粘接护套，具有屏蔽和耐化学品功能的控制电缆 Control cable with copper core, XLPE insulation, plastic coated aluminum tape, bonded jacket, shielding, chemical medicine resistance.
LH-KYJA23	/	铜芯交联聚乙烯绝缘涂塑铝带粘接内护套镀锌钢带铠装聚乙烯外护套，具有屏蔽和耐化学品功能的控制电缆 Control cable with copper core, XLPE insulation, plastic coated aluminum tape, bonded inner sheath, galvanized steel tape armoring, PE outer sheath, with the function of shielding, chemical medicine resistance.

### 四、规格

### Specication

电缆型号 Cable type	芯数 Core number	导体标称截面 (mm <sup>2</sup> ) Nominal cross section area of conductor
LH-YJA, LH-YJLA LH-YJA23, LH-YJLA23	1	2.5-300
	2	
	3	
	4	2.5-185
	5	
	3+1	4-300
	3+2	4-185
	4+1	4-240

电缆型号 Cable type	导体标称截面 (mm <sup>2</sup> ) Nominal cross section area of conductor				
	0.75, 1.0	1.5	2.5	4	6, 10
	芯数 Core number				
LH-KYJA	2-61	2-37	2-14	2-10	
LH-KYJA23	6-61	4-61	4-37	4-14	4-10

## 五、产品特点

1. 本产品耐药品性和抑制药品透过性能较好，仅次于全封闭金属护套，且相比之下电缆外径小，重量轻，可弯曲性能好；

2. 由于屏蔽层采用纵包结构，因此电缆的屏蔽效果优于绕包结构的电缆；

3. 金属屏蔽和铠装层内侧均配有引流线，形成了全屏蔽结构；引流线不仅有利于电缆接地处理，而且可确保屏蔽层的连续性。

## Product characteristic

1. The cable has good feature of medicine resistance, medicine permeation resistance. It is only inferior to full enclosure metal sheath. By comparison, it also has feature of small cable OD, light weight and good bending performance.

2. Compared with wrapping structure of cable, shielding effect of cable with vertical wrapping structure as shielding layer is much better.

3. Both metal shielding and armoring layer inner side have drain wire, which helps to form full shielding structure. Drain wire not only is good for cable earthing, but also is good for ensuring continuity of shielding layer.

## 六、交货长度

电缆根据双方的协议长度交货；长度计量误差不得超过±0.5%。

## Delivery length

Delivery length of cable depends on both agreement with length error allowance of ±0.5%.



## 控制电缆 Control cable



交联聚乙烯绝缘聚氯乙烯护套控制电缆  
Control Cable with XLPE Insulation and PVC Sheath

聚氯乙烯绝缘及护套控制电缆  
PVC Insulation & Sheath Control Cable

硅橡胶 (阻燃) 控制电缆  
Silicon Rubber (flame retardant) Control Cable

低烟低卤阻燃控制电缆  
Low Smoke Low Halogen Flame Retardant Control Cable

氟塑料绝缘耐高温控制电缆  
High Temperature Resistant Control Cable with Fluoroplastic Insulation

# 交联聚乙烯绝缘控制电缆

## XLPE Insulation Control cable

本产品适用于交流额定电压450/750V及以下控制，监控回路及保护线路等场合使用。

This product is suitable for the use of AC rated voltage 450/750V and below, WITH in monitoring circuit and protection line or other occasions.

### 一、生产执行标准

GB/T9330.3-2008.

### Production standards

GB/T9330.3-2008.

### 二、使用特性

1. 电缆导体的长期允许工作温度为90℃；
2. 电缆的敷设温度应不低于0℃，推荐的允许弯曲半径：无铠装层的电缆，应不小于电缆外径的8倍；有铠装或铜带屏蔽结构的电缆，应不小于电缆外径的12倍。

### Operational performance

1. Long-term working temperature allowed by cable conductor is 90°C.
2. Environment temperature for installation should be no less than 0°C, allowed bending radius is stipulated as follows: It should be no less than 8 times that of cable OD for unarmored cable. It should be no less than 12 times that of cable OD for the cable with armored or copper shielded structure.

### 三、产品型号中各字母代表意义

1. 系列代号	K
2. 材料代号	
铜导体	省略
交联聚乙烯或交联聚丙烯绝缘	YJ
聚氯乙烯护套	V
聚乙烯或聚丙烯护套	Y
3. 结构特征代号	
编织屏蔽	P
铜带屏蔽	P2
软结构	R
铝/塑复合薄膜屏蔽	P3
双钢带铠装	2
钢丝铠装	3
聚氯乙烯外护套	2
聚乙烯或聚丙烯外护套	3

### The meaning of each letter in the product model

1. Series code	K
2. Material Code	
Copper conductor	omitted
XLPE or crosslinked polyolefine insulation	YJ
PVC sheath	V
PE or Polyolefine sheath	Y
3. Structural character code	
Braided shield	P
Copper tape shield	P2
Soft structure	R
Aluminum/plastic composite film shielding	P3
Dual steel tape armor	2
Steel wire armor	3
PVC outer sheath	2
PE or Polyolefine sheath	3

### 四、型号名称

### Model Name

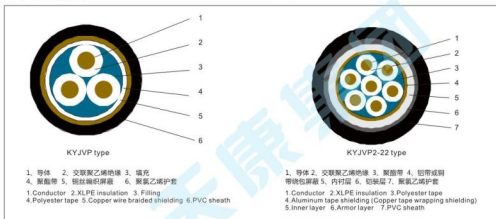
型号 Type	产品名称 Description
KYJV	铜芯交联聚乙烯绝缘聚氯乙烯护套控制电缆 Control cable with Cu core, XLPE insulation, PVC sheath.
KYJVP	铜芯交联聚乙烯绝缘聚氯乙烯护套铜丝编织屏蔽控制电缆 Control cable with Cu core, XLPE insulation, PVC sheath, copper wire braided shielding.
KYJVP2	铜芯交联聚乙烯绝缘聚氯乙烯护套铜带屏蔽控制电缆 Control cable with Cu core, XLPE insulation, PVC sheath, copper tape shielding.
KYJVP3	铜芯交联聚乙烯绝缘聚氯乙烯护套铝塑复合带屏蔽控制电缆 Control cable with Copper conductor, XLPE insulation, PVC sheath, aluminum-polyester tape shielding
KYJV22	铜芯交联聚乙烯绝缘聚氯乙烯护套铜带铠装控制电缆 Control cable with Cu core, XLPE insulation, PVC sheath, steel tape armor.
KYJVP2-22	铜芯交联聚乙烯绝缘聚氯乙烯护套铜带屏蔽铜带铠装控制电缆 Control cable with Cu core, XLPE insulation, PVC sheath, copper tape shielding, steel tape armor.
KYJV32	铜芯交联聚乙烯绝缘聚氯乙烯护套铜丝铠装控制电缆 Control cable with Cu conductor, XLPE insulation, PVC sheath and steel wire armored.

注：①用户需要阻燃型产品，订货时应在原型号前加“ZA-、ZB-、ZC-”，如：ZA-KYJV型等；  
②根据用户需要，还可提供生产未列出的型号的产品，如：KYJVP2-23、KYJV33等。

Prefix ZA-, ZB-, ZC is added to the original type for indication of flame resistance cable, for example, ZA-KYJV.  
We also produce unlisted type of cables as required, such as KYJVP2-23, KYJV33 and so on.

产品结构示意图

The figure of cable structure



## 五、技术参数

## Technical Parameter

### 1. 成品电缆导体20℃时直流电阻，

### 1. DC resistance of finished cable conductor at 20℃.

项目 Item	单位 Unit	技术指标 Technical indices							
20℃时导体直流电阻 DC resistance of conductor at 20℃	Ω/km	截面mm <sup>2</sup> Cross section area	0.75	1.0	1.5	2.5	4	6	10
		Category A, B类	24.5	18.1	12.1	7.41	4.61	3.08	1.83
		Category R类	26.0	19.5	13.3	7.98	/	/	/

### 2. 成品电缆应经受3.0kV/5min工频交流电压试验，绝

### 2. Finished cable should bear A.C. voltage of 3.0KV under power frequency for 5min without puncture of insulation.

缘不击穿。

### 3. 成品电缆导体90℃时直流电阻，

### 3. DC resistance of finished cable conductor at 90℃.

项目 Item	单位 Unit	技术指标 Technical indices							
90℃时导体直流电阻 DC resistance of conductor at 90℃	Ω/km	截面mm <sup>2</sup> Cross section area	0.75	1.0	1.5	2.5	4	6	10
		Category A, B类	1.20	1.10	1.10	1.0	0.85	0.70	/
		Category R类	1.4	1.30	1.0	0.90	0.77	0.65	0.65

### 4. 交联聚乙烯绝缘控制电缆的耐热性、耐寒性、耐化学性、绝缘电阻和使用寿命远优于聚氯乙烯绝缘控制电缆。

### 4. XLPE insulated control cable is much better than PVC insulation control cable, in terms of heat resistance, cold resistance, chemical resistance, insulation resistance and service life.

## 六、典型电缆结构及外形尺寸

## External Dimension of Common Type

## KYJV型铜芯交联聚乙烯绝缘聚氯乙烯护套控制电缆

Control cable with Cu conductor, XLPE insulation and PVC sheath (KYJV).

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter
2×0.75	1	7.7	3×0.75	1	8.1	4×0.75	1	8.6
2×0.75	2	7.9	3×0.75	2	8.3	4×0.75	2	8.8
2×1.0	1	8.0	3×1.0	1	8.4	4×1.0	1	8.9
2×1.0	2	8.2	3×1.0	2	8.6	4×1.0	2	9.2
2×1.5	1	8.5	3×1.5	1	8.9	4×1.5	1	9.5
2×1.5	2	8.7	3×1.5	2	9.1	4×1.5	2	9.7
2×2.5	1	9.6	3×2.5	1	10.1	4×2.5	1	10.9
2×2.5	2	9.8	3×2.5	2	10.3	4×2.5	2	11.1
2×4	1	10.5	3×4	1	11.1	4×4	1	12.0
2×4	2	10.8	3×4	2	11.4	4×4	2	12.3
2×6	1	11.5	3×6	1	12.1	4×6	1	13.7
2×6	2	11.8	3×6	2	12.5	4×6	2	14.2
2×10	2	14.2	3×10	2	15.0	4×10	2	16.2
5×0.75	1	9.2	7×0.75	1	9.8	8×0.75	1	10.7
5×0.75	2	9.4	7×0.75	2	10.1	8×0.75	2	11.0
5×1.0	1	9.6	7×1.0	1	10.2	8×1.0	1	11.2
5×1.0	2	9.8	7×1.0	2	10.5	8×1.0	2	11.5
5×1.5	1	10.2	7×1.5	1	10.9	8×1.5	1	12.0
5×1.5	2	10.5	7×1.5	2	11.2	8×1.5	2	12.4
5×2.5	1	11.8	7×2.5	1	12.7	8×2.5	1	14.6
5×2.5	2	12.0	7×2.5	2	13.5	8×2.5	2	14.9
5×4	1	12.9	7×4	1	14.5	8×4	1	16.1
5×4	2	13.9	7×4	2	15.0	8×4	2	16.6
5×6	1	14.8	7×6	1	16.0	8×6	1	17.7
5×6	2	15.3	7×6	2	16.6	8×6	2	18.4
5×10	2	17.6	7×10	2	19.1	8×10	2	21.8
10×0.75	1	11.8	12×0.75	1	12.2	14×0.75	1	12.7
10×0.75	2	12.2	12×0.75	2	12.6	14×0.75	2	13.7
10×1.0	1	12.4	12×1.0	1	12.8	14×1.0	1	13.9
10×1.0	2	12.8	12×1.0	2	13.2	14×1.0	2	14.3
10×1.5	1	14.0	12×1.5	1	14.4	14×1.5	1	15.0
10×1.5	2	14.3	12×1.5	2	14.8	14×1.5	2	15.4
10×2.5	1	16.3	12×2.5	1	16.7	14×2.5	1	17.5
10×2.5	2	16.6	12×2.5	2	17.1	14×2.5	2	17.9
10×4	1	18.0	12×4	1	18.5	14×4	1	19.8
10×4	2	18.6	12×4	2	19.1	14×4	2	20.4
10×6	1	20.3	12×6	1	20.9	14×6	1	21.9
10×6	2	21.1	12×6	2	21.7	14×6	2	22.8
10×10	2	24.5	19×0.75	1	14.5	24×0.75	1	16.6
16×0.75	1	13.9	19×0.75	2	15.0	24×0.75	2	17.1
16×0.75	2	14.3	19×1.0	1	15.2	24×1.0	1	17.4
16×1.0	1	14.5	19×1.0	2	15.7	24×1.0	2	18.0
16×1.0	2	15.0	19×1.5	1	16.4	24×1.5	1	18.9
16×1.5	1	15.7	19×1.5	2	16.9	24×1.5	2	19.8
16×1.5	2	16.1	19×2.5	1	19.7	24×2.5	1	22.7
16×2.5	1	18.4	19×2.5	2	20.2	24×2.5	2	23.3
16×2.5	2	18.8	30×0.75	1	17.4	37×0.75	1	18.6
27×0.75	1	16.9	30×0.75	2	18.0	37×0.75	2	19.7
27×0.75	2	17.5	30×1.0	1	18.3	37×1.0	1	20.0
27×1.0	1	17.7	30×1.0	2	18.9	37×1.0	2	20.7
27×1.0	2	18.3	30×1.5	1	20.2	37×1.5	1	21.7
27×1.5	1	19.2	30×1.5	2	20.9	37×1.5	2	22.4
27×1.5	2	20.2	30×2.5	1	23.9	37×2.5	1	25.7
27×2.5	1	23.1	30×2.5	2	24.6	37×2.5	2	26.4
27×2.5	2	23.7	48×0.75	1	21.4	52×0.75	1	21.9
44×0.75	1	21.1	48×0.75	2	22.2	52×0.75	2	22.7
44×0.75	2	21.8	48×1.0	1	22.5	52×1.0	1	23.1
44×1.0	1	22.2	48×1.0	2	23.3	52×1.0	2	23.9
44×1.0	2	23.0	48×1.5	1	24.5	52×1.5	1	25.1
44×1.5	1	24.1	48×1.5	2	25.3	52×1.5	2	25.9
44×1.5	2	24.9	48×2.5	1	29.8	52×2.5	1	30.6
44×2.5	1	29.3	48×2.5	2	30.6	52×2.5	2	31.4
44×2.5	2	30.1	61×1.0	1	24.2	61×1.0	1	26.3
61×0.75	1	22.9	61×1.0	2	25.1	61×1.5	2	27.2
61×0.75	2	23.8	61×2.5	1	32.0	61×2.5	2	32.9



## KYJVP型铜芯交联聚乙烯绝缘聚氯乙烯护套套编织屏蔽控制电缆

## Control cable with Cu conductor, XLPE insulation, PVC sheath and copper wire braided shielding (KYJVP).

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter
2×0.75	1	8.7	2×0.75	2	8.9	3×0.75	1	9.1
2×1.0	1	9.0	2×1.0	2	9.2	3×1.0	1	9.4
2×1.5	1	9.5	2×1.5	2	9.7	3×1.5	1	9.9
2×2.5	1	10.6	2×2.5	2	10.8	3×2.5	1	11.1
2×4	1	11.5	2×4	2	11.8	3×4	1	12.1
2×6	1	12.5	2×6	2	13.4	3×6	1	13.7
/	/	/	2×10	2	15.4	/	/	/
3×0.75	2	9.3	4×0.75	1	9.6	4×0.75	2	9.8
3×1.0	2	9.6	4×1.0	1	9.9	4×1.0	2	10.2
3×1.5	2	10.1	4×1.5	1	10.5	4×1.5	2	10.8
3×2.5	2	11.3	4×2.5	1	11.9	4×2.5	2	12.2
3×4	2	12.4	4×4	1	13.5	4×4	2	13.9
3×6	2	14.1	4×6	1	14.9	4×6	2	15.4
3×10	2	16.2	/	/	/	4×10	2	17.5
5×0.75	1	10.2	5×0.75	2	10.4	7×0.75	1	10.8
5×1.0	1	10.6	5×1.0	2	10.8	7×1.0	1	11.2
5×1.5	1	11.2	5×1.5	2	11.5	7×1.5	1	11.9
5×2.5	1	13.3	5×2.5	2	13.6	7×2.5	1	14.2
5×4	1	14.7	5×4	2	15.1	7×4	1	15.8
5×6	1	16.0	5×6	2	16.6	7×6	1	17.2
/	/	/	5×10	2	18.9	/	/	/
7×0.75	2	11.1	8×0.75	1	11.7	8×0.75	2	12.1
7×1.0	2	11.5	8×1.0	1	12.2	8×1.0	2	12.5
7×1.5	2	12.2	8×1.5	1	13.6	8×1.5	2	14.0
7×2.5	2	14.8	8×2.5	1	15.8	8×2.5	2	16.2
7×4	2	16.2	8×4	1	17.3	8×4	2	17.8
7×6	2	17.8	8×6	1	19.4	8×6	2	20.0
7×10	2	20.8	/	/	/	8×10	2	23.3
10×0.75	1	13.4	10×0.75	2	13.8	12×0.75	1	13.8
10×1.0	1	14.0	10×1.0	2	14.4	12×1.0	1	14.4
10×1.5	1	15.2	10×1.5	2	15.6	12×1.5	1	15.6
10×2.5	1	17.5	10×2.5	2	17.9	12×2.5	1	18.0
10×4	1	19.6	10×4	2	20.2	12×4	1	20.2
10×6	1	21.5	10×6	2	22.3	12×6	1	22.2
12×0.75	2	14.2	14×0.75	1	14.3	14×0.75	2	14.9
12×1.0	2	15.0	14×1.0	1	15.2	14×1.0	2	15.6
12×1.5	2	16.0	14×1.5	1	16.2	14×1.5	2	16.6
12×2.5	2	18.4	14×2.5	1	18.8	14×2.5	2	19.6
12×4	2	20.8	14×4	1	21.0	14×4	2	21.7
12×6	2	23.0	14×6	1	23.2	14×6	2	24.0
16×0.75	1	15.1	16×0.75	2	15.6	19×0.75	1	15.7
16×1.0	1	15.8	16×1.0	2	16.2	19×1.0	1	16.5
16×1.5	1	16.9	16×1.5	2	17.4	19×1.5	1	17.7
16×2.5	1	20.0	16×2.5	2	20.5	19×2.5	1	20.9
18×0.75	2	16.2	24×0.75	1	17.8	24×0.75	2	18.4
19×1.0	2	16.9	24×1.0	1	18.7	24×1.0	2	19.6
19×1.5	2	18.1	24×1.5	1	20.5	24×1.5	2	21.1
19×2.5	2	21.4	24×2.5	1	23.9	24×2.5	2	24.5
27×0.75	1	18.1	27×0.75	2	18.7	30×0.75	1	18.6
27×1.0	1	19.4	27×1.0	2	20.0	30×1.0	1	20.0
27×1.5	1	20.9	27×1.5	2	21.4	30×1.5	1	21.5
27×2.5	1	24.4	27×2.5	2	25.2	30×2.5	1	25.4
30×0.75	2	19.6	37×0.75	1	20.2	37×0.75	2	20.9
30×1.0	2	20.6	37×1.0	1	21.3	37×1.0	2	21.9
30×1.5	2	22.1	37×1.5	1	22.9	37×1.5	2	23.6
30×2.5	2	26.0	37×2.5	1	27.2	37×2.5	2	27.9
44×0.75	1	22.3	44×0.75	2	23.1	48×0.75	1	22.6
44×1.0	1	23.5	44×1.0	2	24.2	48×1.0	1	23.8
44×1.5	1	25.6	44×1.5	2	26.4	48×1.5	1	26.0
44×2.5	1	30.8	44×2.5	2	31.6	48×2.5	1	31.3
48×0.75	2	23.4	52×0.75	1	23.2	52×0.75	2	24.0
48×1.0	2	24.6	52×1.0	1	24.4	52×1.0	2	25.4
48×1.5	2	26.8	52×1.5	1	26.6	52×1.5	2	27.4
48×2.5	2	32.0	52×2.5	1	32.0	52×2.5	2	32.9
61×0.75	1	24.4	61×1.0	1	25.9	61×1.5	1	28.6
61×2.5	1	33.8	61×0.75	2	25.5	61×1.0	2	28.8
61×1.5	2	29.5	61×2.5	2	35.1	/	/	/

**KYJV2(P3)型铜芯交联聚乙烯绝缘聚氯乙烯护套铜带(铝塑复合带)屏蔽控制电缆**

**Control cable with Cu conductor, XLPE insulation, PVC sheath and Copper tape /Aluminum polyester tape shielding (KYJV P2/P3).**

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter
4×2.5	1	11.4	5×2.5	1	12.2	7×0.75	1	10.3
4×4	1	12.4	5×4	1	14.0	7×1.0	1	10.7
4×6	1	14.2	5×6	1	15.3	7×1.5	1	11.4
4×10	2	16.7	5×10	2	18.1	7×2.5	1	13.7
8×0.75	1	11.2	10×0.75	1	12.3	7×4	1	15.0
8×1.0	1	11.7	10×1.0	1	13.5	7×6	1	16.5
8×1.5	1	12.5	10×1.5	1	14.4	7×10	2	20.0
8×2.5	1	15.1	10×2.5	1	16.7	12×0.75	1	13.2
8×4	1	16.6	10×4	1	18.5	12×1.0	1	13.8
8×6	1	18.2	10×6	1	20.8	12×1.5	1	14.8
8×10	2	22.3	10×10	2	25.0	12×2.5	1	17.2
14×0.75	1	13.8	16×0.75	1	14.3	12×4	1	19.4
14×1.0	1	14.4	16×1.0	1	15.0	12×6	1	21.4
14×1.5	1	15.4	16×1.5	1	16.2	19×0.75	1	15.0
14×2.5	1	18.0	16×2.5	1	18.9	19×1.0	1	15.7
14×4	1	20.3	27×0.75	1	17.3	19×1.5	1	16.6
14×6	1	22.4	27×1.0	1	18.2	19×2.5	1	20.2
24×0.75	1	17.0	27×1.5	1	20.1	30×0.75	1	17.9
24×1.0	1	17.9	27×2.5	1	23.6	30×1.0	1	18.8
24×1.5	1	19.7	44×0.75	1	21.5	30×1.5	1	20.7
24×2.5	1	23.2	44×1.0	1	22.7	30×2.5	1	24.4
37×0.75	1	19.5	44×1.5	1	24.6	48×0.75	1	21.9
37×1.0	1	20.5	44×2.5	1	29.8	48×1.0	1	23.0
37×1.5	1	22.2	52×0.75	1	22.4	48×1.5	1	25.0
37×2.5	1	26.2	52×1.0	1	23.6	48×2.5	1	30.3
52×1.5	1	25.6	61×1.5	1	27.1	61×0.75	1	23.6
52×2.5	1	31.0	61×2.5	1	32.8	61×1.0	1	24.9

**KYJV22型铜芯交联聚乙烯绝缘聚氯乙烯护套铜带铠装控制电缆**

**Control cable with Cu conductor, XLPE insulation, PVC sheath and steel tape armored (KYJV 22).**

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter
4×2.5	1	13.9	5×2.5	1	14.7	7×0.75	1	12.2
4×4	1	14.9	5×4	1	15.9	7×1.0	1	12.6
4×6	1	16.1	5×6	1	17.2	7×1.5	1	13.9
4×10	2	18.6	5×10	2	20.4	7×2.5	1	15.6
8×0.75	1	13.7	10×0.75	1	14.8	7×4	1	16.9
8×1.0	1	14.2	10×1.0	1	15.4	7×6	1	18.4
8×1.5	1	15.0	10×1.5	1	16.4	7×10	2	21.9
8×2.5	1	17.0	10×2.5	1	18.7	12×0.75	1	15.2
8×4	1	18.5	10×4	1	20.8	12×1.0	1	15.8
8×6	1	20.5	10×6	1	22.7	12×1.5	1	16.8
8×10	2	24.2	10×10	2	27.3	12×2.5	1	19.1
14×0.75	1	16.7	16×0.75	1	16.8	12×4	1	23.3
14×1.0	1	16.3	16×1.0	1	16.0	12×6	1	23.3
14×1.5	1	17.4	16×1.5	1	18.1	19×0.75	1	16.9
14×2.5	1	20.3	16×2.5	1	21.2	19×1.0	1	17.6
14×4	1	22.2	27×0.75	1	19.6	19×1.5	1	18.8
14×6	1	24.3	27×1.0	1	20.5	19×2.5	1	22.1
24×0.75	1	19.0	27×1.5	1	22.0	30×0.75	1	20.2
24×1.0	1	20.2	27×2.5	1	25.5	30×1.0	1	21.1
24×1.5	1	21.6	44×0.75	1	23.5	30×1.5	1	22.6
24×2.5	1	25.1	44×1.0	1	24.6	30×2.5	1	26.7
37×0.75	1	21.4	44×1.5	1	26.9	48×0.75	1	23.8
37×1.0	1	22.4	44×2.5	1	32.1	48×1.0	1	24.9
37×1.5	1	24.1	52×0.75	1	24.3	48×1.5	1	27.3
37×2.5	1	29.1	52×1.0	1	25.5	48×2.5	1	32.6
52×1.5	1	27.9	52×2.5	1	33.7	61×0.75	1	25.5
61×1.0	1	27.2	61×1.5	1	29.9	61×2.5	1	36.7

**KYJVP2-22型铜芯交联聚乙烯绝缘聚氯乙烯护套铜带屏蔽钢带铠装控制电缆**

**Control cable with Cu conductor, XLPE insulation, PVC sheath, Copper tape shielding and steel tape armored (KYJV P2-22).**

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter
4×2.5	1	14.7	5×2.5	1	15.5	7×0.75	1	13.5
4×4	1	15.7	5×4	1	14.7	7×1.0	1	14.0
4×6	1	16.9	5×6	1	18.0	7×1.5	1	14.7
4×10	2	19.8	5×10	2	21.2	7×2.5	1	16.4
8×0.75	1	14.5	10×0.75	1	15.6	7×4	1	17.7
8×1.0	1	15.0	10×1.0	1	16.2	7×6	1	19.1
8×1.5	1	15.8	10×1.5	1	17.1	7×10	2	22.2
8×2.5	1	17.8	10×2.5	1	19.8	12×0.75	1	15.9
8×4	1	19.6	10×4	1	21.5	12×1.0	1	16.5
8×6	1	21.8	10×6	1	23.5	12×1.5	1	17.5
8×10	2	24.9	10×10	2	28.1	12×2.5	1	20.3
14×0.75	1	16.4	16×0.75	1	17.0	12×4	1	22.1
14×1.0	1	17.1	16×1.0	1	17.7	12×6	1	24.1
14×1.5	1	18.1	16×1.5	1	18.8	19×0.75	1	17.7
14×2.5	1	21.1	16×2.5	1	21.9	19×1.0	1	18.4
14×4	1	23.0	27×0.75	1	20.4	19×1.5	1	20.0
14×6	1	25.1	27×1.0	1	21.3	19×2.5	1	22.8
24×0.75	1	20.1	27×1.5	1	22.8	30×0.75	1	21.0
24×1.0	1	21.0	27×2.5	1	26.7	30×1.0	1	21.9
24×1.5	1	22.4	44×0.75	1	24.2	30×1.5	1	23.4
24×2.5	1	25.9	44×1.0	1	25.4	30×2.5	1	27.5
37×0.75	1	22.2	44×1.5	1	27.7	48×0.75	1	24.5
37×1.0	1	23.2	44×2.5	1	32.9	48×1.0	1	25.7
37×1.5	1	24.9	52×0.75	1	25.1	48×1.5	1	28.1
37×2.5	1	29.8	52×1.0	1	26.7	48×2.5	1	33.3
52×1.5	1	29.3	52×2.5	1	35.6	61×0.75	1	26.7
61×1.0	1	28.0	61×1.5	1	30.7	61×2.5	1	37.4

**KYJV32型铜芯交联聚乙烯绝缘聚氯乙烯护套铜丝铠装控制电缆**

**Control cable with Cu conductor, XLPE insulation, PVC sheath and steel wire armored (KYJV 32).**

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter
4×4	1	16.6	5×4	1	17.5	7×1.5	1	14.7
4×6	1	17.7	5×6	1	18.8	7×2.5	1	17.3
4×10	2	20.7	5×10	2	22.7	7×4	1	18.6
8×1.5	1	16.6	10×1.5	1	18.0	7×6	1	20.4
8×2.5	1	18.6	10×2.5	1	20.7	7×10	2	24.2
8×4	1	20.5	10×4	1	23.1	12×1.5	1	18.4
8×6	1	22.8	10×6	1	25.0	12×2.5	1	21.8
8×10	2	26.5	10×10	2	30.2	12×4	1	23.6
14×1.5	1	19.0	16×1.5	1	20.1	12×6	1	25.6
14×2.5	1	22.6	16×2.5	1	23.5	19×0.75	1	18.5
14×4	1	24.5	27×0.75	1	21.9	19×1.0	1	19.2
14×6	1	26.6	27×1.0	1	22.8	19×1.5	1	20.8
24×0.75	1	21.0	27×1.5	1	24.8	19×2.5	1	24.4
24×1.0	1	22.5	27×2.5	1	27.9	30×0.75	1	22.5
24×1.5	1	23.9	44×0.75	1	25.8	30×1.0	1	23.4
24×2.5	1	27.4	44×1.0	1	26.9	30×1.5	1	24.9
37×0.75	1	23.7	44×1.5	1	29.8	30×2.5	1	29.6
37×1.0	1	24.7	44×2.5	1	35.6	48×0.75	1	26.1
37×1.5	1	26.4	52×0.75	1	26.1	48×1.0	1	27.3
37×2.5	1	31.4	52×1.0	1	27.3	48×1.5	1	30.2
52×1.5	1	30.2	52×2.5	1	36.0	48×2.5	1	36.0
61×0.75	1	27.8	61×1.0	1	30.1	61×1.5	1	33.0
61×2.5	1	38.6	/	/	/	/	/	/

# 聚氯乙烯绝缘和护套控制电缆

## Control Cable with PVC Insulation and Sheath

本产品适用于交流额定电压450/750V及以下控制，监控回路及保护线路等场合使用。

This product is suitable for Protective link or control & monitoring circuits, with the AC rated voltages up to and including 450/750V

### 一、生产执行标准

GB/T9330.2-2008。

### Executive standard

GB/T9330.2-2008。

### 二、使用特性

1. 电缆导体的长期允许工作温度为70°C；
2. 电缆的敷设温度应不低于0°C，推荐的允许弯曲半径：无铠装层的电缆，应不小于电缆外径的6倍；有铠装或铜带屏蔽结构的电缆；应不小于电缆外径的12倍；有屏蔽层结构的软电缆，应不小于电缆外径的6倍。

### Operational performance

1. Long term working temperature of conductor allowed by cable is 70°C.
2. Environment temperature for installation is no less than 0°C. Recommended Bending Radius for laying:  
For armored cable or copper tape shielding cable, not less than 12 times of cable outer diameter. For screened flexible cable and without armor cable, not less than 6 times.

### 三、电缆型号及主要使用范围

### Type, Description and Application Occasion

型号 Type	名称 Description	主要使用范围 Application occasion
KVV	铜芯聚氯乙烯绝缘聚氯乙烯护套控制电缆 Control cable with Cu core, PVC insulation and sheath	敷设在室内、电缆沟、管道固定场合 Lay in a fixed place, such as indoors, cable trench and conduit
KVVP	铜芯聚氯乙烯绝缘聚氯乙烯护套编织屏蔽控制电缆 Control cable with Cu core, PVC insulation and sheath, braided shielding	敷设在室内、电缆沟、管道等要求屏蔽的固定场合 For laying indoors, in cable trench and conduit, the cable should be shielded and for fixed installation.
KVVP2	铜芯聚氯乙烯绝缘聚氯乙烯护套铜带屏蔽控制电缆 Control cable with Cu core, PVC insulation and sheath, copper tape shielding	敷设在室内、电缆沟、管道等要求屏蔽的固定场合 For laying indoors, in cable trench and conduit, the cable should be shielded and for fixed installation.
KVVP3	铜芯聚氯乙烯绝缘聚氯乙烯护套铝聚酯复合带屏蔽控制电缆 Control cable with Cu conductor, PVC insulation, PVC sheath and Aluminum polyester tape	敷设在室内、电缆沟、管道等要求屏蔽的固定场合 For laying indoors, in cable trench and conduit, the cable should be shielded and for fixed installation.
KVV22	铜芯聚氯乙烯绝缘聚氯乙烯护套铜带铠装控制电缆 Control cable with Cu core, PVC insulation and sheath, steel tape armoring	敷设在室内、电缆沟、管道直埋等能承受较大机械外力的固定场合 For laying indoors, in cable trench, in conduit and underground, able to bear heavier pulling force, and for fixed installation.
KVVP2-22	铜芯聚氯乙烯绝缘聚氯乙烯护套铜带屏蔽铜带铠装控制电缆 Control cable with Cu conductor, PVC insulation, PVC sheath and steel tape armored	敷设在室内、电缆沟、管道直埋等要求屏蔽并能承受较大机械外力的固定场合 For laying indoors, in cable trench, in conduit and underground, able to bear heavier pulling force, the cable should be shielded and for fixed installation.
KVV32	铜芯聚氯乙烯绝缘聚氯乙烯护套细钢丝铠装控制电缆 Control cable with Cu core, PVC insulation and sheath, steel wire armoring	敷设在室内、电缆沟、管道竖井等能承受较大机械拉力等固定场合 For laying indoors, in trenches, in ducts and down well, able to bear heavier pulling force, and for fixed installation.
KVVR	铜芯聚氯乙烯绝缘聚氯乙烯护套控制软电缆 Control soft cable with Cu core, PVC insulation and sheath	敷设在室内移动要求柔软场合 To be laid indoor with demand on mobility and softness
KVVRP	铜芯聚氯乙烯绝缘聚氯乙烯护套编织屏蔽控制软电缆 Control soft cable with Cu core, PVC insulation and sheath, braided shielding	敷设在室内移动要求柔软、屏蔽等场合 To be laid indoor with demand on shielding and softness

注：①用户需要扁型产品，上述型号均可生产供货，只要在型号前加“Z A-、ZB-、ZC-”，如：ZA-KVV型等；  
②根据用户需要，还可提供生产未列出的型号的产品，如：K V VP 32、K VVP 2-32等。

Note: Prefix ZA-, ZB-, ZC is added to the original type for indication of flame resistance cable, for example, ZA-KVVJ.  
We also produce unlisted type of cables as required, such as KVVP32, KVVP2-32 and so on.

各型号规格范围

Various Specification Range

型号 Type	额定电压 V Rated voltage	导体标称截面 mm <sup>2</sup> Nominal cross section of conductor area						
		0.5	0.75	1.0	1.5	2.5	4	6
		芯数 Core number						
KVV	450/750	-	2-61				2-14	2-10
KVVP2 KVVP3		-	4-61				4-14	4-10
KVV22		-	7-61	4-61		4-14	4-10	
KVVP2-22		-	7-61	4-61		4-14	4-10	
KVV32		-	19-61	7-61		4-14	4-10	
KVVR		4-61				-	-	-
KVVRP		4-61		4-68		-	-	-

注：推荐的芯数系列为：2, 3, 4, 5, 7, 8, 10, 12, 14, 16, 19, 24, 27, 30, 37, 44, 48, 52和61芯。

Note: Cores recommended: 2,3,4,5,7,8,10,12,14,16,19,24,27,30,37,44,48,52 or 61.

## 六、典型电缆结构及外形尺寸

## External Dimension of Common Type

### KVV型铜芯聚氯乙烯绝缘及护套控制电缆

### KVV type control cable with Cu core, PVC insulation and sheath.

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃
2×0.75	1	7.7	0.012	3×0.75	1	8.1	0.012
2×0.75	2	7.9	0.014	3×0.75	2	8.3	0.014
2×1.0	1	8.0	0.011	3×1.0	1	8.4	0.011
2×1.0	2	8.2	0.013	3×1.0	2	8.6	0.013
2×1.5	1	8.9	0.011	3×1.5	1	9.3	0.011
2×1.5	2	9.1	0.010	3×1.5	2	9.5	0.010
2×2.5	1	10.0	0.010	3×2.5	1	10.5	0.010
2×2.5	2	10.2	0.009	3×2.5	2	10.7	0.009
2×4	1	10.9	0.0085	3×4	1	11.5	0.0085
2×4	2	11.2	0.0077	3×4	2	11.8	0.0077
2×6	1	11.8	0.0070	3×6	1	12.5	0.0070
2×6	2	12.2	0.0065	3×6	2	12.9	0.0065
2×10	2	15.3	0.0065	3×10	2	16.2	0.0065
4×0.75	1	8.8	0.012	5×0.75	1	9.2	0.012
4×0.75	2	8.8	0.014	5×0.75	2	9.4	0.014
4×1.0	1	8.9	0.011	5×1.0	1	9.5	0.011
4×1.0	2	9.2	0.013	5×1.0	2	9.8	0.013
4×1.5	1	10.0	0.011	5×1.5	1	10.7	0.011
4×1.5	2	10.2	0.010	5×1.5	2	11.0	0.010
4×2.5	1	11.4	0.010	5×2.5	1	12.3	0.010
4×2.5	2	11.6	0.009	5×2.5	2	12.5	0.009
4×4	1	12.4	0.0085	5×4	1	14.0	0.0085
4×4	2	12.8	0.0077	5×4	2	14.4	0.0077
4×6	1	14.2	0.0070	5×6	1	15.3	0.0070
4×6	2	14.6	0.0065	5×6	2	15.8	0.0065
4×10	2	17.6	0.0065	5×10	2	19.2	0.0065
7×0.75	1	9.8	0.012	8×0.75	1	10.7	0.012
7×0.75	2	10.1	0.014	8×0.75	2	11.0	0.014
7×1.0	1	10.2	0.011	8×1.0	1	11.2	0.011
7×1.0	2	10.5	0.013	8×1.0	2	11.5	0.013
7×1.5	1	11.5	0.011	8×1.5	1	12.7	0.011
7×1.5	2	11.8	0.010	8×1.5	2	13.6	0.010
7×2.5	1	13.8	0.010	8×2.5	1	15.3	0.010
7×2.5	2	14.1	0.009	8×2.5	2	15.6	0.009
7×4	1	15.1	0.0085	8×4	1	16.8	0.0085
7×4	2	15.5	0.0077	8×4	2	17.3	0.0077
7×6	1	16.6	0.0070	8×6	1	18.4	0.0070
7×6	2	17.1	0.0065	8×6	2	19.1	0.0065
7×10	2	21.3	0.0065	8×10	2	23.8	0.0065

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃
10×0.75	1	11.8	0.012	12×0.75	1	12.2	0.012
10×0.75	2	12.2	0.014	12×0.75	2	12.6	0.014
10×1.0	1	12.4	0.011	12×1.0	1	12.8	0.011
10×1.0	2	12.8	0.013	12×1.0	2	13.8	0.013
10×1.5	1	14.7	0.011	12×1.5	1	15.2	0.011
10×1.5	2	15.1	0.010	12×1.5	2	15.5	0.010
10×2.5	1	17.0	0.010	12×2.5	1	17.5	0.010
10×2.5	2	17.4	0.009	12×2.5	2	17.9	0.009
10×4	1	18.8	0.0085	12×4	1	19.7	0.0085
10×4	2	19.7	0.0077	12×4	2	20.3	0.0077
10×6	1	21.1	0.0070	12×6	1	21.7	0.0070
10×6	2	21.8	0.0065	12×6	2	22.5	0.0065
10×10	2	26.8	0.0065	/	/	/	/
14×0.75	1	12.7	0.012	16×0.75	1	13.9	0.012
14×0.75	2	13.7	0.014	16×0.75	2	14.3	0.014
14×1.0	1	13.9	0.011	16×1.0	1	14.5	0.011
14×1.0	2	14.3	0.013	16×1.0	2	15.0	0.013
14×1.5	1	15.8	0.011	16×1.5	1	16.6	0.011
14×1.5	2	16.2	0.010	16×1.5	2	17.0	0.010
14×2.5	1	18.4	0.010	16×2.5	1	19.3	0.010
14×2.5	2	18.8	0.009	16×2.5	2	20.1	0.009
14×4	1	20.6	0.0085	24×0.75	1	16.6	0.012
14×4	2	21.3	0.0077	24×0.75	2	17.1	0.014
14×6	1	22.8	0.0070	24×1.0	1	17.4	0.011
14×6	2	23.8	0.0065	24×1.0	2	18.0	0.013
19×0.75	1	14.5	0.012	24×1.5	1	20.4	0.011
19×0.75	2	15.0	0.014	24×1.5	2	21.0	0.010
19×1.0	1	15.2	0.011	24×2.5	1	23.8	0.010
19×1.0	2	15.7	0.013	24×2.5	2	24.4	0.009
19×1.5	1	17.4	0.011	30×0.75	1	17.4	0.012
19×1.5	2	17.8	0.010	30×0.75	2	18.0	0.014
19×2.5	1	20.6	0.010	30×1.0	1	18.5	0.011
19×2.5	2	21.1	0.009	30×1.0	2	19.5	0.013
27×0.75	1	16.9	0.012	30×1.5	1	21.5	0.011
27×0.75	2	17.5	0.014	30×1.5	2	22.5	0.010
27×1.0	1	17.7	0.011	30×2.5	1	24.9	0.010
27×1.0	2	18.3	0.013	30×2.5	2	26.3	0.009
27×1.5	1	20.8	0.011	44×0.75	1	21.1	0.012
27×1.5	2	21.4	0.010	44×0.75	2	21.8	0.014
27×2.5	1	24.3	0.010	44×1.0	1	22.2	0.011
27×2.5	2	24.9	0.009	44×1.0	2	23.0	0.013
37×0.75	1	18.5	0.012	44×1.5	1	25.7	0.011
37×0.75	2	19.8	0.014	44×1.5	2	26.4	0.010
37×1.0	1	20.0	0.011	44×2.5	1	30.9	0.010
37×1.0	2	20.7	0.013	44×2.5	2	31.6	0.009
37×1.5	1	23.0	0.011	52×0.75	1	21.9	0.012
37×1.5	2	23.7	0.010	52×0.75	2	22.7	0.014
37×2.5	1	27.1	0.010	52×1.0	1	23.1	0.011
37×2.5	2	27.7	0.009	52×1.0	2	23.9	0.013
48×0.75	1	21.4	0.012	52×1.5	1	26.8	0.011
48×0.75	2	22.2	0.014	52×1.5	2	27.6	0.010
48×1.0	1	22.5	0.011	52×2.5	1	32.2	0.010
48×1.0	2	23.3	0.013	52×2.5	2	33.0	0.009
48×1.5	1	26.1	0.011	61×0.75	1	22.9	0.012
48×1.5	2	26.9	0.010	61×0.75	2	23.8	0.014
48×2.5	1	31.3	0.010	61×1.0	1	24.2	0.011
48×2.5	2	32.1	0.009	61×1.0	2	25.1	0.013
61×1.5	1	28.0	0.011	61×2.5	1	34.1	0.010
61×1.5	2	29.5	0.010	61×2.5	2	35.0	0.009

## KVVP型铜芯聚氯乙烯绝缘及护套编织屏蔽控制电缆

KVVP type control cable with Cu core, PVC insulation and sheath, braided shield.

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃	芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃
2×0.75	1	8.7	0.012	2×0.75	2	8.9	0.014
2×1.0	1	9.0	0.011	2×1.0	2	9.2	0.013
2×1.5	1	9.9	0.011	2×1.5	2	10.1	0.010
2×2.5	1	11.0	0.010	2×2.5	2	11.2	0.009
2×4	1	11.9	0.0085	2×4	2	12.2	0.0077
2×6	1	12.9	0.0070	2×6	2	13.8	0.0065
/	/	/	/	2×10	2	16.6	0.0065
3×0.75	1	9.1	0.012	3×0.75	2	9.3	0.014
3×1.0	1	9.4	0.011	3×1.0	2	9.6	0.013
3×1.5	1	10.3	0.011	3×1.5	2	10.5	0.010
3×2.5	1	11.5	0.010	3×2.5	2	11.8	0.009
3×4	1	12.5	0.0085	3×4	2	12.8	0.0077
3×6	1	14.1	0.0070	3×6	2	14.7	0.0065
/	/	/	/	3×10	2	17.4	0.0065
4×0.75	1	9.6	0.012	4×0.75	2	9.8	0.014
4×1.0	1	9.9	0.011	4×1.0	2	10.2	0.013
4×1.5	1	11.0	0.011	4×1.5	2	11.2	0.010
4×2.5	1	12.4	0.010	4×2.5	2	12.6	0.009
4×4	1	14.0	0.0085	4×4	2	14.6	0.0077
4×6	1	15.4	0.0070	4×6	2	15.9	0.0065
/	/	/	/	4×10	2	18.9	0.0065
5×0.75	1	10.2	0.012	5×0.75	2	10.4	0.014
5×1.0	1	10.6	0.011	5×1.0	2	10.8	0.013
5×1.5	1	11.7	0.011	5×1.5	2	12.0	0.010
5×2.5	1	13.9	0.010	5×2.5	2	14.1	0.009
5×4	1	15.3	0.0085	5×4	2	15.7	0.0077
5×6	1	16.6	0.0070	5×6	2	17.1	0.0065
/	/	/	/	5×10	2	20.8	0.0065
7×0.75	1	10.8	0.012	7×0.75	2	11.1	0.014
7×1.0	1	11.2	0.011	7×1.0	2	11.5	0.013
7×1.5	1	12.5	0.011	7×1.5	2	12.8	0.010
7×2.5	1	15.1	0.010	7×2.5	2	15.4	0.009
7×4	1	16.4	0.0085	7×4	2	16.8	0.0077
7×6	1	17.8	0.0070	7×6	2	18.4	0.0065
/	/	/	/	7×10	2	22.5	0.0065
8×0.75	1	11.7	0.012	8×0.75	2	12.1	0.014
8×1.0	1	12.2	0.011	8×1.0	2	12.5	0.013
8×1.5	1	14.5	0.011	8×1.5	2	14.9	0.010
8×2.5	1	16.5	0.010	8×2.5	2	16.8	0.009
8×4	1	18.0	0.0085	8×4	2	18.5	0.0077
8×6	1	20.0	0.0070	8×6	2	20.7	0.0065
/	/	/	/	8×10	2	25.2	0.0065
10×0.75	1	12.9	0.012	10×0.75	2	13.8	0.014
10×1.0	1	14.0	0.011	10×1.0	2	14.6	0.013
10×1.5	1	16.0	0.011	10×1.5	2	16.4	0.010
10×2.5	1	18.3	0.010	10×2.5	2	18.7	0.009
10×4	1	20.4	0.0085	10×4	2	21.0	0.0077
10×6	1	22.3	0.0070	10×6	2	23.1	0.0065
/	/	/	/	10×10	2	28.9	0.0065
12×0.75	1	13.8	0.012	12×0.75	2	14.2	0.014
12×1.0	1	14.6	0.011	12×1.0	2	15.0	0.013
12×1.5	1	16.4	0.011	12×1.5	2	16.8	0.010
12×2.5	1	18.8	0.010	12×2.5	2	19.2	0.009
12×4	1	21.0	0.0085	12×4	2	21.6	0.0077
12×6	1	23.0	0.0070	12×6	2	23.8	0.0065
14×0.75	1	14.5	0.012	14×0.75	2	14.9	0.014
14×1.0	1	15.2	0.011	14×1.0	2	15.6	0.013
14×1.5	1	17.1	0.011	14×1.5	2	17.5	0.010
14×2.5	1	20.0	0.010	14×2.5	2	20.4	0.009
14×4	1	21.9	0.0085	14×4	2	22.5	0.0077
14×6	1	24.0	0.0070	14×6	2	25.1	0.0065
16×0.75	1	15.1	0.012	16×0.75	2	15.6	0.014
16×1.0	1	15.8	0.011	16×1.0	2	16.2	0.013
16×1.5	1	17.8	0.011	16×1.5	2	18.3	0.010
16×2.5	1	20.9	0.010	16×2.5	2	21.4	0.009
19×0.75	1	15.7	0.012	19×0.75	2	16.2	0.014

19×1.0	1	16.5	0.011	19×1.0	2	16.9	0.013
19×1.5	1	18.6	0.011	19×1.5	2	19.1	0.010
19×2.5	1	21.9	0.010	19×2.5	2	22.4	0.009
24×0.75	1	17.8	0.012	24×0.75	2	18.4	0.014
24×1.0	1	18.7	0.011	24×1.0	2	19.2	0.013
24×1.5	1	21.6	0.011	24×1.5	2	22.2	0.010
24×2.5	1	25.3	0.010	24×2.5	2	25.9	0.009
27×0.75	1	18.1	0.012	27×0.75	2	18.7	0.014
27×1.0	1	19.0	0.011	27×1.0	2	20.0	0.013
27×1.5	1	22.0	0.011	27×1.5	2	22.6	0.010
27×2.5	1	25.8	0.010	27×2.5	2	26.4	0.009
30×0.75	1	18.6	0.012	30×0.75	2	19.3	0.014
30×1.0	1	20.0	0.011	30×1.0	2	20.6	0.013
30×1.5	1	22.7	0.011	30×1.5	2	23.3	0.010
30×2.5	1	26.7	0.010	30×2.5	2	27.3	0.009
37×0.75	1	20.2	0.012	37×0.75	2	20.9	0.014
37×1.0	1	21.3	0.011	37×1.0	2	21.9	0.013
37×1.5	1	24.3	0.011	37×1.5	2	25.2	0.010
37×2.5	1	29.1	0.010	37×2.5	2	29.8	0.009
44×0.75	1	22.3	0.012	44×0.75	2	23.1	0.014
44×1.0	1	23.5	0.011	44×1.0	2	24.2	0.013
44×1.5	1	26.8	0.011	44×1.5	2	27.9	0.010
44×2.5	1	32.0	0.010	44×2.5	2	33.3	0.009
48×0.75	1	22.2	0.012	48×0.75	2	23.4	0.014
48×1.0	1	23.5	0.011	48×1.0	2	24.6	0.013
48×1.5	1	27.1	0.011	48×1.5	2	28.9	0.010
48×2.5	1	32.5	0.010	48×2.5	2	33.6	0.009
52×0.75	1	22.6	0.012	52×0.75	2	23.7	0.014
52×1.0	1	24.3	0.011	52×1.0	2	25.4	0.013
52×1.5	1	27.9	0.011	52×1.5	2	29.6	0.010
52×2.5	1	33.4	0.010	52×2.5	2	35.0	0.009
61×0.75	1	24.0	0.012	61×0.75	2	24.9	0.014
61×1.0	1	25.5	0.011	61×1.0	2	26.5	0.013
61×1.5	1	29.9	0.011	61×1.5	2	30.9	0.010
61×2.5	1	35.7	0.010	61×2.5	2	37.1	0.009



KVVP2(P3)型铜芯聚氯乙烯绝缘及护套铜带(铝塑复合带)屏蔽控制电缆

Control cable with Cu core, PVC insulation, PVC sheath and Copper tape /Aluminum polyester tape shielding (KVVP2/P3).

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃
4×0.75	1	9.1	0.012	5×0.75	1	9.6	0.012
4×1.0	1	9.4	0.011	5×1.0	1	10.0	0.011
4×1.5	1	10.5	0.011	5×1.5	1	11.2	0.011
4×2.5	1	11.9	0.010	5×2.5	1	12.8	0.010
4×4	1	13.5	0.0085	5×4	1	14.5	0.0085
4×6	1	14.6	0.0070	5×6	1	15.8	0.0070
4×10	2	18.1	0.0065	5×10	2	20.1	0.0065
7×0.75	1	10.3	0.012	8×0.75	1	11.2	0.012
7×1.0	1	10.7	0.011	8×1.0	1	11.7	0.011
7×1.5	1	12.0	0.011	8×1.5	1	13.8	0.011
7×2.5	1	14.3	0.010	8×2.5	1	15.7	0.010
7×4	1	15.6	0.0085	8×4	1	17.2	0.0085
7×6	1	17.0	0.0070	8×6	1	18.9	0.0070
7×10	2	21.7	0.0065	8×10	2	24.2	0.0065
10×0.75	1	12.3	0.012	10×4	1	19.6	0.0085
10×1.0	1	13.5	0.011	10×6	1	21.5	0.0070
10×1.5	1	15.2	0.011	10×10	2	27.3	0.0065
10×2.5	1	17.5	0.010	/	/	/	/
12×0.75	1	12.7	0.012	14×0.75	1	13.2	0.012
12×1.0	1	13.8	0.011	14×1.0	1	14.4	0.011
12×1.5	1	15.6	0.011	14×1.5	1	16.3	0.011
12×2.5	1	18.0	0.010	14×2.5	1	18.8	0.010
12×4	1	20.2	0.0085	14×4	1	21.1	0.0085
12×6	1	22.2	0.0070	14×6	1	23.2	0.0070
16×0.75	1	14.3	0.012	19×0.75	1	15.0	0.012
16×1.0	1	15.0	0.011	19×1.0	1	15.7	0.011
16×1.5	1	17.1	0.011	19×1.5	1	17.8	0.011
16×2.5	1	20.1	0.010	19×2.5	1	21.1	0.010
24×0.75	1	17.0	0.012	27×0.75	1	17.3	0.012
24×1.0	1	17.9	0.011	27×1.0	1	18.2	0.011
24×1.5	1	20.9	0.011	27×1.5	1	21.3	0.011
24×2.5	1	24.3	0.010	27×2.5	1	24.8	0.010
30×0.75	1	17.9	0.012	37×0.75	1	19.1	0.012
30×1.0	1	18.8	0.011	37×1.0	1	20.5	0.011
30×1.5	1	22.0	0.011	37×1.5	1	23.5	0.011
30×2.5	1	25.6	0.010	37×2.5	1	27.5	0.010
44×0.75	1	21.5	0.012	48×0.75	1	21.9	0.012
44×1.0	1	22.7	0.011	48×1.0	1	23.0	0.011
44×1.5	1	26.2	0.011	48×1.5	1	26.5	0.011
44×2.5	1	31.3	0.010	48×2.5	1	31.8	0.010
52×0.75	1	22.4	0.012	61×0.75	1	23.6	0.012
52×1.0	1	23.6	0.011	61×1.0	1	24.9	0.011
52×1.5	1	27.2	0.011	61×1.5	1	29.4	0.011
52×2.5	1	32.7	0.010	61×2.5	1	34.9	0.010

KVV22型铜芯聚氯乙烯绝缘及护套钢带铠装控制电缆

KVV22 type control cable with Cu core, PVC insulation and sheath, steel tape armoring.

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃	芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃
4×1.5	1	13.0	0.011	5×1.5	1	13.7	0.011
4×2.5	1	14.4	0.010	5×2.5	1	15.3	0.010
4×4	1	15.4	0.0085	5×4	1	16.4	0.0085
4×6	1	16.6	0.0070	5×6	1	17.7	0.0070
4×10	2	20.4	0.0065	5×10	2	22.0	0.0065
7×0.75	1	12.8	0.012	8×0.75	1	13.7	0.012
7×1.0	1	13.2	0.011	8×1.0	1	14.2	0.011
7×1.5	1	14.5	0.011	8×1.5	1	15.7	0.011
7×2.5	1	16.2	0.010	8×2.5	1	17.7	0.010
7×4	1	17.5	0.0085	8×4	1	19.2	0.0085
7×6	1	19.0	0.0070	8×6	1	21.2	0.0070
7×10	2	23.7	0.0065	8×10	2	26.2	0.0065
10×0.75	1	14.8	0.012	14×0.75	1	15.7	0.012
10×1.0	1	15.4	0.011	14×1.0	1	16.3	0.011
10×1.5	1	17.1	0.011	14×1.5	1	18.2	0.011
10×2.5	1	19.8	0.010	14×2.5	1	21.1	0.010
10×4	1	21.5	0.0085	14×4	1	23.0	0.0085
10×6	1	23.5	0.0070	14×6	1	25.2	0.0070
10×10	2	30.2	0.0065	16×0.75	1	16.3	0.012
12×0.75	1	15.1	0.012	16×1.0	1	17.0	0.011
12×1.0	1	15.8	0.011	16×1.5	1	19.0	0.011
12×1.5	1	17.6	0.011	16×2.5	1	22.1	0.010
12×2.5	1	20.3	0.010	19×0.75	1	16.9	0.012
12×4	1	22.1	0.0085	19×1.0	1	17.6	0.011
12×6	1	24.1	0.0070	19×1.5	1	20.2	0.011
J	/	/	/	19×2.5	1	23.0	0.010
24×0.75	1	19.0	0.012	27×0.75	1	19.7	0.012
24×1.0	1	20.2	0.011	27×1.0	1	20.5	0.011
24×1.5	1	22.8	0.011	27×1.5	1	23.2	0.011
24×2.5	1	26.6	0.010	27×2.5	1	27.1	0.010
30×0.75	1	20.2	0.012	37×0.75	1	21.4	0.012
30×1.0	1	21.1	0.011	37×1.0	1	22.4	0.011
30×1.5	1	23.9	0.011	37×1.5	1	25.4	0.011
30×2.5	1	28.0	0.010	37×2.5	1	30.4	0.010
44×0.75	1	23.5	0.012	48×0.75	1	23.8	0.012
44×1.0	1	24.6	0.011	48×1.0	1	25.0	0.011
44×1.5	1	29.0	0.011	48×1.5	1	29.4	0.011
44×2.5	1	34.0	0.010	48×2.5	1	34.5	0.010
52×0.75	1	24.3	0.012	61×0.75	1	25.5	0.012
52×1.0	1	25.5	0.011	61×1.0	1	27.2	0.011
52×1.5	1	30.1	0.011	61×1.5	1	31.7	0.011
52×2.5	1	36.5	0.010	61×2.5	1	38.4	0.010

## KVVP2-22型铜芯聚氯乙烯绝缘及护套铜带屏蔽铜带铠装控制电缆

Control cable with Cu core, PVC insulation &amp; sheath, Copper tape shielding and steel tape armored (KVVP2-22).

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃	芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃
4×1.5	1	13.7	0.011	5×1.5	1	14.5	0.011
4×2.5	1	15.1	0.010	5×2.5	1	16.0	0.010
4×4	1	16.2	0.0085	5×4	1	17.2	0.0085
4×6	1	17.3	0.0070	5×6	1	18.5	0.0070
4×10	2	21.2	0.0065	5×10	2	22.8	0.0065
7×0.75	1	13.5	0.012	8×0.75	1	14.5	0.012
7×1.0	1	14.0	0.011	8×1.0	1	15.0	0.011
7×1.5	1	15.3	0.011	8×1.5	1	16.4	0.011
7×2.5	1	17.0	0.010	8×2.5	1	18.4	0.010
7×4	1	18.3	0.0085	8×4	1	20.3	0.0085
7×6	1	20.1	0.0070	8×6	1	22.0	0.0070
7×10	2	24.4	0.0065	8×10	2	27.3	0.0065
10×0.75	1	15.6	0.012	10×4	1	22.3	0.0085
10×1.0	1	16.2	0.011	10×6	1	24.2	0.0070
10×1.5	1	17.9	0.011	10×10	2	31.0	0.0065
10×2.5	1	20.6	0.010	7	7	7	7
12×0.75	1	15.9	0.012	14×0.75	1	16.4	0.012
12×1.0	1	16.5	0.011	14×1.0	1	17.1	0.011
12×1.5	1	18.3	0.011	14×1.5	1	19.4	0.011
12×2.5	1	21.1	0.010	14×2.5	1	21.9	0.010
12×4	1	22.9	0.0085	14×4	1	23.8	0.0085
12×6	1	24.9	0.0070	14×6	1	25.9	0.0070
16×0.75	1	17.0	0.012	19×0.75	1	17.7	0.012
16×1.0	1	17.7	0.011	19×1.0	1	18.4	0.011
16×1.5	1	20.1	0.011	19×1.5	1	20.9	0.011
16×2.5	1	22.8	0.010	19×2.5	1	23.8	0.010
24×0.75	1	20.1	0.012	27×0.75	1	20.4	0.012
24×1.0	1	21.0	0.011	27×1.0	1	21.3	0.011
24×1.5	1	23.6	0.011	27×1.5	1	24.0	0.011
24×2.5	1	27.4	0.010	27×2.5	1	27.9	0.010
30×0.75	1	21.0	0.012	37×0.75	1	22.2	0.012
30×1.0	1	21.9	0.011	37×1.0	1	23.2	0.011
30×1.5	1	24.6	0.011	37×1.5	1	26.6	0.011
30×2.5	1	29.3	0.010	37×2.5	1	31.2	0.010
44×0.75	1	24.2	0.012	48×0.75	1	24.5	0.012
44×1.0	1	25.4	0.011	48×1.0	1	25.7	0.011
44×1.5	1	29.8	0.011	48×1.5	1	30.2	0.011
44×2.5	1	34.8	0.010	48×2.5	1	36.4	0.010
52×0.75	1	25.9	0.012	61×0.75	1	26.7	0.012
52×1.0	1	27.6	0.011	61×1.0	1	28.0	0.011
52×1.5	1	31.9	0.011	61×1.5	1	32.4	0.011
52×2.5	1	38.5	0.010	61×2.5	1	39.2	0.010

KVV32型铜芯聚氯乙烯绝缘及护套钢丝铠装控制电缆

Control cable with Cu core, PVC insulation, & sheath and steel wire armored (KVV32).

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃	芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃
4×4	1	17.0	0.0085	5×4	1	18.0	0.0085
4×6	1	18.2	0.0070	5×6	1	19.7	0.0070
4×10	2	22.7	0.0065	5×10	2	24.3	0.0065
7×1.5	1	16.1	0.011	8×1.5	1	17.3	0.011
7×2.5	1	17.8	0.010	8×2.5	1	19.7	0.010
7×4	1	19.1	0.0085	8×4	1	21.8	0.0085
7×6	1	21.0	0.0070	8×6	1	23.5	0.0070
7×10	2	26.0	0.0065	8×10	2	28.5	0.0065
10×1.5	1	18.8	0.011	10×4	1	23.8	0.0085
10×2.5	1	22.1	0.010	10×6	1	25.8	0.0070
10×10	2	33.3	0.0065	/	/	/	/
12×1.5	1	19.2	0.011	14×1.5	1	20.2	0.011
12×2.5	1	22.6	0.010	14×2.5	1	23.4	0.010
12×4	1	24.4	0.0085	14×4	1	25.3	0.0085
12×6	1	26.4	0.0070	14×6	1	27.5	0.0070
16×1.5	1	21.0	0.011	19×0.75	1	18.5	0.012
16×2.5	1	24.4	0.010	19×1.0	1	19.2	0.011
24×0.75	1	21.0	0.012	19×1.5	1	22.5	0.011
24×1.0	1	22.5	0.011	19×2.5	1	25.3	0.010
24×1.5	1	25.1	0.011	27×0.75	1	21.9	0.012
24×2.5	1	29.5	0.010	27×1.0	1	22.8	0.011
30×0.75	1	22.5	0.012	27×1.5	1	25.5	0.011
30×1.0	1	23.4	0.011	27×2.5	1	30.0	0.010
30×1.5	1	26.2	0.011	37×0.75	1	23.7	0.012
30×2.5	1	30.8	0.010	37×1.0	1	24.7	0.011
44×0.75	1	25.8	0.012	37×1.5	1	27.7	0.011
44×1.0	1	26.9	0.011	37×2.5	1	33.5	0.010
44×1.5	1	31.3	0.011	48×0.75	1	26.1	0.012
44×2.5	1	37.1	0.010	48×1.0	1	27.3	0.011
52×0.75	1	26.1	0.012	48×1.5	1	31.7	0.011
52×1.0	1	27.3	0.011	48×2.5	1	37.6	0.010
52×1.5	1	31.7	0.011	61×0.75	1	27.8	0.012
52×2.5	1	37.6	0.010	61×1.0	1	30.1	0.011
61×1.5	1	35.1	0.011	61×2.5	1	40.3	0.010

## KVVR型铜芯聚氯乙烯绝缘及护套控制软电缆

## Copper core control flexible cable, PVC insulation&amp;sheath (KVVR).

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70°C最小绝缘电阻 mΩ.km Min insulated resistance at 70°C	芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70°C最小绝缘电阻 mΩ.km Min insulated resistance at 70°C
2×0.5	5	7.4	0.013	3×0.5	5	7.8	0.013
2×0.75	5	7.7	0.011	3×0.75	5	8.1	0.011
2×1.0	5	8.0	0.010	3×1.0	5	8.4	0.010
2×1.5	5	8.9	0.010	3×1.5	5	9.3	0.010
2×2.5	5	10.1	0.009	3×2.5	5	10.7	0.009
4×0.5	5	8.3	0.013	5×0.5	5	8.9	0.013
4×0.75	5	8.6	0.011	5×0.75	5	9.3	0.011
4×1.0	5	9.0	0.010	5×1.0	5	9.6	0.010
4×1.5	5	10.0	0.010	5×1.5	5	10.8	0.010
4×2.5	5	11.5	0.009	5×2.5	5	12.5	0.009
7×0.5	5	9.5	0.013	8×0.5	5	10.4	0.013
7×0.75	5	9.9	0.011	8×0.75	5	10.9	0.011
7×1.0	5	10.3	0.010	8×1.0	5	11.4	0.010
7×1.5	5	11.6	0.010	8×1.5	5	13.5	0.010
7×2.5	5	14.1	0.009	8×2.5	5	15.6	0.009
10×0.5	5	11.5	0.013	12×0.5	5	11.9	0.013
10×0.75	5	12.1	0.011	12×0.75	5	12.5	0.011
10×1.0	5	13.3	0.010	12×1.0	5	13.7	0.010
10×1.5	5	15.0	0.010	12×1.5	5	15.4	0.010
10×2.5	5	17.5	0.009	12×2.5	5	18.0	0.009
14×0.5	5	12.4	0.013	16×0.5	5	13.6	0.013
14×0.75	5	13.6	0.011	16×0.75	5	14.2	0.011
14×1.0	5	14.2	0.010	16×1.0	5	14.9	0.010
14×1.5	5	16.1	0.010	16×1.5	5	17.0	0.010
14×2.5	5	18.9	0.009	16×2.5	5	20.3	0.009
19×0.5	5	14.2	0.013	24×0.5	5	16.3	0.013
19×0.75	5	14.9	0.011	24×0.75	5	17.1	0.011
19×1.0	5	15.6	0.010	24×1.0	5	18.0	0.010
19×1.5	5	17.8	0.010	24×1.5	5	21.0	0.010
19×2.5	5	21.3	0.009	24×2.5	5	24.7	0.009
27×0.5	5	16.6	0.013	30×0.5	5	17.1	0.013
27×0.75	5	17.4	0.011	30×0.75	5	18.0	0.011
27×1.0	5	18.3	0.010	30×1.0	5	18.9	0.010
27×1.5	5	21.4	0.010	30×1.5	5	22.1	0.010
27×2.5	5	25.2	0.009	30×2.5	5	26.1	0.009
37×0.5	5	18.3	0.013	44×0.5	5	20.8	0.013
37×0.75	5	19.7	0.011	44×0.75	5	21.9	0.011
37×1.0	5	20.7	0.010	44×1.0	5	23.1	0.010
37×1.5	5	23.7	0.010	44×1.5	5	26.5	0.010
37×2.5	5	28.7	0.009	44×2.5	5	32.1	0.009
48×0.5	5	21.1	0.013	52×0.5	5	21.6	0.013
48×0.75	5	22.2	0.011	52×0.75	5	22.8	0.011
48×1.0	5	23.4	0.010	52×1.0	5	24.0	0.010
48×1.5	5	26.9	0.010	52×1.5	5	27.7	0.010
48×2.5	5	32.6	0.009	52×2.5	5	33.9	0.009
61×0.5	5	22.8	0.013	61×1.5	5	29.9	0.010
61×0.75	5	24.1	0.011	61×2.5	5	35.9	0.009
61×1.0	5	25.4	0.010	/	/	/	/

**KVVRP型铜芯聚氯乙烯绝缘及护套编织屏蔽控制软电缆**

**Control soft cable with Cu conductor, PVC insulation&sheath and copper braided shield (KVVRP).**

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃	芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor category	外径mm Outer diameter	70℃最小绝缘电阻 mΩ.km Min insulated resistance at 70℃
2×0.5	5	8.4	0.013	3×0.5	5	8.8	0.013
2×0.75	5	8.7	0.011	3×0.75	5	9.1	0.011
2×1.0	5	9.0	0.010	3×1.0	5	9.4	0.010
2×1.5	5	9.9	0.010	3×1.5	5	10.3	0.010
2×2.5	5	11.1	0.009	3×2.5	5	11.7	0.009
4×0.5	5	9.3	0.013	5×0.5	5	9.9	0.013
4×0.75	5	9.6	0.011	5×0.75	5	10.3	0.011
4×1.0	5	10.0	0.010	5×1.0	5	10.7	0.010
4×1.5	5	11.0	0.010	5×1.5	5	11.8	0.010
4×2.5	5	12.5	0.009	5×2.5	5	14.3	0.009
7×0.5	5	10.5	0.013	8×0.5	5	11.4	0.013
7×0.75	5	10.9	0.011	8×0.75	5	11.9	0.011
7×1.0	5	11.4	0.010	8×1.0	5	12.4	0.010
7×1.5	5	13.2	0.010	8×1.5	5	14.7	0.010
7×2.5	5	15.3	0.009	8×2.5	5	16.9	0.009
10×0.5	5	12.6	0.013	12×0.5	5	13.5	0.013
10×0.75	5	13.7	0.011	12×0.75	5	14.3	0.011
10×1.0	5	14.5	0.010	12×1.0	5	14.9	0.010
10×1.5	5	16.3	0.010	12×1.5	5	16.7	0.010
10×2.5	5	18.7	0.009	12×2.5	5	19.7	0.009
14×0.5	5	14.2	0.013	16×0.5	5	14.8	0.013
14×0.75	5	14.9	0.011	16×0.75	5	15.5	0.011
14×1.0	5	15.5	0.010	16×1.0	5	16.2	0.010
14×1.5	5	17.4	0.010	16×1.5	5	18.2	0.010
14×2.5	5	20.5	0.009	16×2.5	5	21.5	0.009
19×0.5	5	15.4	0.013	24×0.5	5	17.5	0.013
19×0.75	5	16.2	0.011	24×0.75	5	18.4	0.011
19×1.0	5	16.9	0.010	24×1.0	5	19.6	0.010
19×1.5	5	19.4	0.010	24×1.5	5	22.2	0.010
19×2.5	5	22.5	0.009	24×2.5	5	26.2	0.009
27×0.5	5	17.8	0.013	30×0.5	5	18.3	0.013
27×0.75	5	18.7	0.011	30×0.75	5	19.7	0.011
27×1.0	5	20.0	0.010	30×1.0	5	20.6	0.010
27×1.5	5	22.6	0.010	30×1.5	5	23.3	0.010
27×2.5	5	26.7	0.009	30×2.5	5	27.6	0.009
37×0.5	5	19.9	0.013	44×0.5	5	22.0	0.013
37×0.75	5	21.0	0.011	44×0.75	5	23.2	0.011
37×1.0	5	22.0	0.010	44×1.0	5	24.6	0.010
37×1.5	5	25.2	0.010	44×1.5	5	28.6	0.010
37×2.5	5	30.2	0.009	44×2.5	5	34.0	0.009
48×0.5	5	22.3	0.013	52×0.5	5	22.9	0.013
48×0.75	5	23.5	0.011	52×0.75	5	24.1	0.011
48×1.0	5	24.9	0.010	52×1.0	5	25.5	0.010
48×1.5	5	29.0	0.010	61×0.5	5	24.1	0.013
48×2.5	5	34.5	0.009	61×0.75	5	25.6	0.011
/	/	/	/	61×1.0	5	26.9	0.010

# 硅橡胶（阻燃）控制电缆

## Silicon Rubber(flame retardant)Control Cable

本产品适用于钢铁、冶炼、电厂、焦化厂、航空、冶金机械、石油、化工等高温工业中，额定电压450/750V及以下的控制及监控回路中。它具有优良的耐高温、阻燃、耐辐射、耐老化、耐臭氧、防水等特性，同时具有很好的耐寒性、耐候性。

It is widely used for supervising and controlling return circuit of rated voltage up to and including 450/750V for production under high temperature in the field of steel & iron, refinery, power plant, coking plant, aviation, metallurgy, machinery, petrochemical industry etc. It has good feature of high temperature resistance, flame retardance, radiation resistance, aging resistance, ozone resistance, water proof, freezing resistance and weather resistance.

### 一、生产执行标准

TICW5-2009.

Executive standard

TICW5-2009.

### 二、使用条件

1. 交流额定电压U<sub>0</sub>/U：450/750V；
2. 电缆的敷设温度应不低于-20℃；
3. 电缆允许工作最高温度范围：-60℃~+180℃，推荐无铠装或屏蔽结构弯曲半径不小于电缆外径的6倍，有铠装或屏蔽结构的电缆其弯曲半径不小于电缆外径的12倍；
4. 有优良的耐臭氧老化、热老化、紫外光老化和大气老化性能。

Operational performance

1. A.C rated voltage U<sub>0</sub>/U: 450/750V.
2. Temperature for installing is not lower than -20°C.
3. Working temperature allowed by cable is -60°C ~ +180°C. Recommended bending radius: It shall be not less than 12 times that of cable O.D for armored or shield structure cable, and 6 times that of cable O.D for cable without armored and shield structure.
4. It has good features of ozone aging resistance, thermal aging resistance, ultraviolet resistance and atmosphere aging resistance.

### 三、型号名称及主要使用范围如表1

Type, description and main application occasion listed in the following table 1.

Table 1

型号 Type	名称 Description	主要使用范围 Application occasion
KGG KGGR	铜芯硅橡胶绝缘硅橡胶护套控制（软）电缆 Control(soft) cable with Cu core, silicon rubber insulation and sheath	敷设在室内、电缆沟、管道固定场合及要求柔软等移动场合。 For laying indoors, in cable trench, in conduit, with demand on mobility and softness
KGGP KGGRP	铜芯硅橡胶绝缘硅橡胶护套编织屏蔽控制（软）电缆 Control(soft) cable with Cu core, silicon rubber insulation and sheath, braided shielding	敷设在室内、电缆沟、管道等要求屏蔽的固定场合及要求柔软、屏蔽等移动场合。 To be fixedly laid indoor, cable trench or pipe, in the environment with demand on softness and shielding
KGGP2	铜芯硅橡胶绝缘硅橡胶护套铜带屏蔽控制电缆 Control cable with Cu core, silicon rubber insulation and sheath, copper tape shielding	敷设在室内、电缆沟、管道等要求屏蔽的固定场合。 To be fixed laid indoor, cable trench or pipe with demand on shielding
KGG22	铜芯硅橡胶绝缘硅橡胶护套铜带铠装控制电缆 Control cable with Cu core, silicon rubber insulation & sheath and steel tape armored	敷设在电缆沟、直埋等要求抗一定机械外压力的固定场合。 To be laid in cable trench or direct in ground etc, able to bear external mechanical forces, and for fixed installation.

注：也可提供阻燃型硅橡胶控制电缆，订货时可在上表中的型号前加“ZA、ZB、ZC、ZD”。

Note: we can also offer flame resistance control cable with silicon rubber insulation & sheath, prefix "ZA, ZB, ZC, ZD" should be added to type in table.

#### 四、电缆规格如下表所示

Cable specification as follows

型号 Type	额定电压 V Rated voltage	导体标称截面 mm <sup>2</sup> Nominal cross section of conductor area							
		0.5	0.75	1.0	1.5	2.5	4	6	10
		芯数 Core number							
KGG, KGGP KGGR, KGGRP	450/750	2-61			2-48		2-14	2-10	
KGGP2		4-61							
KGG22		7-61		4-61					
注：推荐的芯数系列为2, 3, 4, 5, 7, 8, 10, 12, 14, 16, 19, 24, 27, 30, 37, 44, 48, 52, 61芯，如用户有特殊需要，也可生产61芯以下任意芯数的电缆。		Note: Recommended series of core number 2,3,4,5,7,8,10,12,14,16,19,24,27,30,37,44,48,52,61. We also produce cable with any number of cores below 61 cores.							

#### 五、技术参数

1. 成品电缆绝缘线芯的绝缘电阻：换算到电缆长度为1km，温度为20℃时应不小于50MΩ；
2. 成品电缆应经受工频交流3000V/5min电压试验，绝缘不击穿。

#### Technical Parameter

1. Insulated resistance of finished cable insulated conductor will be no less than 50MΩ under the condition that cable length is 1km and temperature is 20℃.
2. Finished cable shall bear AC voltage test of 3000V under power frequency for 5 minutes without puncture of insulation.

#### 六、交货要求

允许根据双方协议长度交货；  
长度计量误差不得超过±0.5%。

#### Delivery Length

Delivery length of cable depends on the both agreement with length error allowance of ±0.5%.



# 低烟低卤阻燃控制电缆

## Control Cable with Low smoke, Low halogen and Flame retardant

本产品适用于额定电压450/750V及以下有低烟、低卤阻燃要求作为控制监控回路等场合使用。

It is used for supervising and controlling return circuit of rated voltage 450/750V or lower with demand on low smoke, low halogen and flame retardance.

### 一、生产执行标准

采用企业标准及参照GB9330-2008。

### Executive standard

According to Enterprise standard and GB9330-2008 standard.

### 二、使用特性

- 1、额定电压:U<sub>0</sub>/U为450/750V；
- 2、电缆长期允许工作温度70℃；
- 3、电缆敷设温度应不低于0℃，推荐弯曲半径：有铠装

和铜带屏蔽结构的电缆：其弯曲半径不小于电缆外径的12倍；  
其它结构的电缆：其弯曲半径不小于电缆外径的6倍。

### Operational performance

- 1.Rated voltage: U<sub>0</sub>/U for 450/750V.
- 2.Long-term working temperature allowed by cable is 70°C.
- 3.Ambient temperature for installing cable shall be no lower than 0°C.Recommended bending radius:It shall be no less than 12 times that of cable O.D for armored cable with copper tape shielding structure and 6 times that of cable O.D for cable with other structure.

### 三、电缆的型号名称

- 1、电缆型号名称如表1：

Table 1

### Type and Description

Type and Description in table 1

型号 Type	名称 Description
DDZ-KVV	铜芯低烟低卤阻燃型聚氯乙烯绝缘、护套控制电缆 Control cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath
DDZ-KVVP	铜芯低烟低卤阻燃型聚氯乙烯绝缘、护套铜丝编织屏蔽控制电缆 Control cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath, copper
DDZ-KVVVR	铜芯低烟低卤阻燃型聚氯乙烯绝缘、护套控制软电缆 Control soft cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath
DDZ-KVVVP	铜芯低烟低卤阻燃型聚氯乙烯绝缘、护套铜丝编织屏蔽控制软电缆 Control flexible cable cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath, copper
DDZ-KVVP2	铜芯低烟低卤阻燃型聚氯乙烯绝缘、护套铜带铠装屏蔽控制电缆 Control cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath, Copper wire wrapped shielding
DDZ-KVVP22	铜芯低烟低卤阻燃型聚氯乙烯绝缘、护套铜带铠装控制电缆 Control cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath, steel tape armoring
DDZ-KVVP32	铜芯低烟低卤阻燃型聚氯乙烯绝缘、护套钢丝铠装控制电缆 Control cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath, steel wire armor

注：型号中“DDZ”表示低烟低卤阻燃型。

Remark: 'DDZ' means low smoke & halogen, flame retardant

#### 2、主要名词术语解释

**低烟：**在规定试验条件下，试样受热分解或燃烧释放出的烟比较少，符合规定的指标特性。

**低卤：**在规定试验条件下，试样燃烧时放出的氯化氢气体的含量比较少，符合规定指标的特性。

**阻燃：**在一定的试验条件下，试样被燃烧，在撤去火源后，火焰的蔓延仅在规定的范围内，残焰或残灼在规定的时间内能自行熄灭的特性。

#### Explanation of Main Noun Term

**Low smoke:** Cable sample discharges little smoke when be heated or be burn under stipulated test condition, meeting the requirement of stipulated target.

**Low halogen:** Under stipulated test condition, the amount of hydrogen halide gas released during the sample combustion is very small, which meeting the requirement of stipulated target.

**Flame retardant:** under stipulated testing conditions, the tested sample is fired. After removing from source, the spreads flame is within the prescribed limits, remnant flame will go out on itself within stipulated time.

#### 四、电缆规格范围如

#### Specification Scope

型号 Type	额定电压 V Rated voltage	导体标称截面 mm <sup>2</sup> Nominal cross section of conductor area								
		0.5	0.75	1.0	1.5	2.5	4	6	10	
DDZ-KVV DDZ-KVVP	450/750	2-61					2-37		2-14	
DDZ-KVVP2 DDZ-KVVP22 DDZ-KVVP32		4-61					2-37			
DDZ-KVVR DDZ-KVVRP		2-61					2-37			

#### 五、主要技术指标

#### Main Technical Indices

- 20℃时导体直流电阻值应符合GB/T3956标准要求；
- 成品电缆应经受交流3000V/5min电压试验。

- Conductor DC resistance value at 20 °C shall meet requirements of GB/T3956 standard.
- The finished cable shall bear A.C. voltage test of 3000V for 5min.

标称截面 mm <sup>2</sup> Nominal cross section area	导体结构根数/直径 mm Number of conductor/diameter	20℃导体直流电阻(Ω/km) Conductor DC resistance at 20℃		耐电压强度 Voltage withstanding stress
		不镀锡 Non tinned	镀锡 Tinned	
0.5	1/0.8	36.0	36.7	3kV/5min绝缘无击穿 Insulation without puncture
	7/0.30	36.0	36.7	
	16/0.20	39.0	40.1	
0.75	1/0.97	24.5	24.8	
	7/0.37	24.5	24.8	
	24/0.20	26.0	26.7	
1.0	1/1.13	18.1	18.2	
	7/0.43	18.1	18.2	
	32/0.20	19.5	20.0	
1.5	1/1.38	12.1	12.2	
	7/0.52	12.1	12.2	
	30/0.25	13.3	13.7	
2.5	1/1.78	7.41	7.56	
	7/0.68	7.41	7.56	
	49/0.25	7.98	8.21	
4	1/2.25	4.61	4.70	
	7/0.85	4.61	4.70	
	56/0.30	4.95	5.09	
6	1/2.76	3.08	3.11	
	7/1.04	3.08	3.11	
	84/0.30	3.30	3.39	
10	7/1.35	1.83	1.84	

3. 电缆的外形尺寸参照聚氯乙烯绝缘和护套控制电缆。

External Dimension of Cable Please refer to control cable with PVC insulation and sheath.

#### 六、交货长度

根据双方协议允许任何长度交货；长度计量误差不超过±0.5%。

#### Delivery length

Delivery length of cable depends on both agreements with length error allowance of ±0.5%.

# 氟塑料绝缘耐高温控制电缆

## High-temperature resistant Control Cable with Fluoroplastics Insulation

本产品适用于交流额定电压450/750V及以下控制、监控回路以及电器仪表的连接线和自动控制系统的传输线。产品具有耐油、防水、耐腐、耐酸碱及各种化学试剂（除氧仿外）和各种腐蚀性气体、耐老化、不燃烧等优异性能；本产品主要适用于冶金、电力、化工、石油等工矿企业在高温、低温及各种恶劣环境中作电器、仪表的连接线和自动控制系统的传输线。氟塑料绝缘和护套耐高温控制电缆采用聚全氟乙丙烯材料，产品具有比普通控制电缆更高的耐热等级。

It is used as connection cable for electric appliances & instruments and transmission cable for automatic control system in controlling and supervising loop of A.C. rated voltage of 450/750V or lower. It has good feature of oil resistance, abrasion resistance, acid & alkali resistance, resistant to various chemical reagent(except chloroform) and corrosive gas resistance, aging resistance and incombustible etc. It is used as connection cable for electric appliances & instruments and transmission cable for automatic control system under bad environment of extreme temperature mainly in the field of metallurgy, power, chemical and petroleum enterprises. FEP material used in high temperature resistant cable with fluoroplastic insulation and sheath. It has better heat resistant degree compared with common control cable.

### 一、生产执行标准

TICW3-2009.

### Executive standard

TICW3-2009.

### 二、使用特性

- 1、交流额定电压：U0/U为450/750V；
- 2、电缆导体长期允许工作温度为：氟塑料绝缘为200℃；
- 3、电缆的敷设温度应不低于：硅橡胶护套电缆-20℃，氟塑料护套电缆-20℃；
- 4、电缆推荐允许弯曲半径：无铠装层的电缆，应不小于电缆外径的8倍；有铠装层的电缆或带铜带屏蔽结构的电缆，应不小于电缆外径的15倍。

### Operational performance

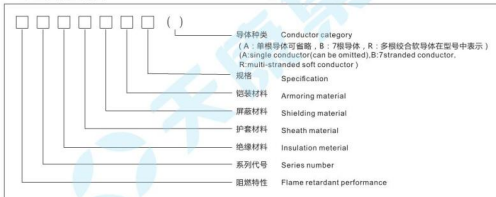
1. A.C. rated voltage U0/U: 450/750V.
2. Long-term working temperature of cable conductor : Temperature of fluoroplastics insulation is 200°C.
3. Temperature for installing cable is no lower than: -20 °C for cable with silicon rubber sheath, -20 °C for cable with fluoroplastic sheath.
4. Bending radius allowed by cable: It is no less than 8 times that of cable OD for cable with unarmored. It is no less than 15 times that of cable OD for cable with armored layer or copper tape shielding.

### 三、电缆型号及名称

#### 1、型号结构组合形式

### Type and Description

#### Type-naming indication



## 2、基本型号与名称

## Basic Type and Description

型号 Type	名称 Description
KFF	氟塑料绝缘氟塑料护套控制电缆 Control cable with fluoroplastic insulation and sheath
KFFP	氟塑料绝缘氟塑料护套铜丝编织屏蔽控制电缆 Control cable with fluoroplastic insulation and sheath,copper wire braided shielding
KFFR	氟塑料绝缘氟塑料护套控制软电缆 Control flexible soft cable with fluoroplastic insulation and sheath
KFFRP	氟塑料绝缘氟塑料护套铜丝编织屏蔽控制软电缆 Copper wire braid shield soft control cable with fluoroplastic insulation and sheath
KFG	氟塑料绝缘硅橡胶护套控制电缆 Control cable with fluoroplastic insulation,silicon rubber sheath
KFGP	氟塑料绝缘硅橡胶护套铜丝编织屏蔽控制电缆 Control cable with fluoroplastic insulation,silicon rubber sheath,copper wire braided shielding
KFGR	氟塑料绝缘硅橡胶护套控制软电缆 Control flexible soft cable with fluoroplastic insulation,silicon rubber sheath
KFGRP	氟塑料绝缘硅橡胶护套铜丝编织屏蔽控制软电缆 Control soft cable with fluoroplastic insulation,silicon rubber sheath,copper wire braided shielding

## 四、代号名称及含义

## Codes Meaning

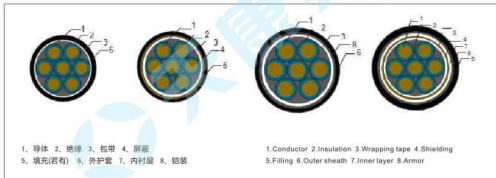
项目 Item	代号 Code	说明 Description
阻燃特性 Flame-retarding characteristics	ZRA/ZA	A类阻燃 Flame retardance of category A
	ZRB/ZB	B类阻燃 Flame retardance of category B
	ZRC/ZC	C类阻燃 Flame retardance of category C
系列代号 Series number	K	控制电缆 Control cable
绝缘材料 Insulation material	F	氟全氟乙丙烯 FEP
护套材料 Sheath material	F	氟全氟乙丙烯 FEP
屏蔽材料 Shielding material	P	铜丝编织屏蔽 Copper wire braided shielding
	P1	镀锡铜丝编织屏蔽 Tinned copper wire braided shielding
	P2	铜带屏蔽 Copper tape shielding
铠装材料 Armoring material	92	细钢丝编织铠装 Fine steel wire armored

注：可根据用户需要生产、设计特殊规格和型号电缆。

Note: we also produce cable with special specification and type according to the requirement of customer.

## 五、电缆的结构图

## The figure of cable structure



## 六、电缆的规格如下表所示

Specification of Cable in Following Table

型号 Type	额定电压 V Rated voltage	导体标称截面 mm <sup>2</sup> Nominal cross section of conductor area							
		0.5	0.75	1.0	1.5	2.5	4	6	10
芯数 Core number									
KFF,KFG,KFFP KFGP,KFFP2	450/750	2-19				2-12			
KFFP,KFGP,FFRP KFGP,KFFR		2-19				-			
KFF92		-	7-61		2-61		2-12		
<p>注：推荐的芯数系列为2, 3, 4, 5, 7, 8, 10, 12, 14, 16, 19芯，如用户有特殊需要，也可生产61芯以下任意芯数的电缆。</p> <p>Note: Recommended series of core number 2,3,4,5,7,8,10,12,14,16,19, we also produce cables with any number of cores below 61 cores.</p>									

## 七、主要技术指标

Main Technical Indices

标称截面 mm <sup>2</sup> Nominal cross section area	导体结构根数/直径 mm Number of conductor/diameter	20℃导体直流电阻(Ω/km) Conductor DC resistance at 20℃		耐电压强度 Voltage withstanding stress
		不镀锡 Non tinned	镀锡 Tinned	
0.5	1/0.8	36.0	36.7	3kV/5min绝缘无击穿 Insulation without puncture
	7/0.30	36.0	36.7	
	16/0.20	39.0	40.1	
0.75	1/0.97	24.5	24.8	
	7/0.37	24.5	24.8	
	24/0.20	26.0	26.7	
1.0	1/1.13	18.1	18.2	
	7/0.43	18.1	18.2	
	32/0.20	19.5	20.0	
1.5	1/1.38	12.1	12.2	
	7/0.52	12.1	12.2	
	30/0.25	13.3	13.7	
2.5	1/1.78	7.41	7.56	
	7/0.68	7.41	7.56	
	19/0.41	7.41	7.56	
4	49/0.25	7.98	8.21	
	1/2.25	4.61	4.70	
	7/0.68	4.61	4.70	
	19/0.52	4.61	4.70	
6	56/0.30	4.95	5.09	
	1/2.76	3.08	3.11	
	7/1.04	3.08	3.11	
	19/0.64	3.08	3.11	
10	84/0.30	3.30	3.39	
	7/1.35	1.83	1.84	

## 八、常用规格结构尺寸及参考重量如下表

The usual specification structure size and reference weight are shown in the table below.

Table 1 KFF, KFFP, KFFP2

芯数×标称截面 mm <sup>2</sup> Core No.×nominal cross	线芯结构(根数/直径) mm Core structure (No./Diameter)	最大外径 mm Max. outer diameter			参考重量kg/km Reference weight		
		KFF	KFFP	KFFP2	KFF	KFFP	KFFP2
2×0.5	1/0.80	4.5	5.4	5.0	35	51	69
2×0.75	1/0.97	4.9	5.8	5.4	45	63	84
2×1.0	1/1.13	5.2	6.1	5.7	52	72	95
2×1.5	1/1.38	5.8	6.7	6.3	65	86	111
2×2.5	1/1.78	6.5	7.4	7	92	118	151
2×4	1/2.25	7.8	8.7	8.3	142	165	175
2×6	1/2.76	8.9	9.8	9.4	211	245	279
3×0.5	1/0.80	4.7	5.6	5.2	44	62	80
3×0.75	1/0.97	5.2	6.1	5.7	57	77	99
3×1.0	1/1.13	5.3	6.2	5.8	69	89	114
3×1.5	1/1.38	6.1	7	6.6	88	110	141
3×2.5	1/1.78	7.1	8	7.6	126	153	191
3×4	1/2.25	8.5	9.4	9	215	255	278
4×0.5	1/0.80	5.1	6	5.6	54	73	94
4×0.75	1/0.97	5.7	6.6	6.2	70	92	118
4×1.0	1/1.13	6.2	7.1	6.7	86	109	140
4×1.5	1/1.38	6.8	7.7	7.3	111	136	174
4×2.5	1/1.78	7.7	8.6	8.2	157	187	234
4×4	1/2.25	9.6	10.5	10.1	270	295	311
5×0.5	1/0.80	5.9	6.8	6.4	64	85	110
5×0.75	1/0.97	6.4	7.3	6.9	85	108	138
5×1.0	1/1.13	6.8	7.7	7.3	103	129	165
5×1.5	1/1.38	7.5	8.4	8	134	162	207
5×2.5	1/1.78	8.8	9.7	9.3	191	224	280
5×4	1/2.25	10.6	11.5	12.1	325	362	395
7×0.5	1/0.80	6.3	7.3	6.8	82	106	136
7×0.75	1/0.97	7.1	8.1	7.6	110	136	174
7×1.0	1/1.13	7.4	8.4	7.9	135	164	208
7×1.5	1/1.38	8.2	9.2	8.7	177	208	260
7×2.5	1/1.78	9.5	10.5	10	262	300	369
7×4	1/2.25	11.6	12.6	12.1	415	458	485
8×0.5	1/0.80	6.8	7.8	7.3	97	122	150
8×0.75	1/0.97	7.5	8.5	8	128	157	192
8×1.0	1/1.13	7.9	8.9	8.4	157	189	229
8×1.5	1/1.38	8.7	9.7	9.2	207	241	284
8×2.5	1/1.78	10.3	11.3	10.8	314	367	426

Sequel table1 KFF、KFFP、KFFP2

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross	线芯结构(根数/直径) mm Core structure (No./Diameter)	最大外径 mm Max. outer diameter			参考重量kg/km Weight for reference		
		KFF	KFFP	KFFP2	KFF	KFFP	KFFP2
10×0.5	1/0.80	7.9	8.9	8.4	113	153	188
10×0.75	1/0.97	8.7	9.7	9.2	152	186	227
10×1.0	1/1.13	9.3	10.3	9.8	202	241	292
10×1.5	1/1.38	10.3	11.3	10.8	263	316	373
10×2.5	1/1.78	12.1	13.1	12.6	378	442	513
12×0.5	1/0.80	8.2	9.2	8.7	130	161	198
12×0.75	1/0.97	9.0	10	9.5	177	212	259
12×1.0	1/1.13	9.6	10.6	10.1	233	274	332
12×1.5	1/1.38	10.8	11.8	11.3	305	360	425
12×2.5	1/1.78	12.5	13.5	13	442	508	589
14×0.5	1/0.80	8.8	9.8	9.3	147	179	220
14×0.75	1/0.97	9.9	10.9	10.4	215	255	311
14×1.0	1/1.13	11.5	12.6	12.3	265	319	386
14×1.5	1/1.38	11.6	12.7	12.4	350	409	483
14×2.5	1/1.78	13.3	14.4	14.1	533	613	675
16×0.5	1/0.80	9.5	10.6	10.3	165	199	245
16×0.75	1/0.97	10.4	11.5	11.2	241	282	344
16×1.0	1/1.13	11.0	12.1	11.8	298	355	430
16×1.5	1/1.38	13.0	14.3	13.8	394	457	539
16×2.5	1/1.78	15.1	16.4	16.0	604	694	764
19×0.5	1/0.80	10.3	11.4	11.1	205	243	296
19×0.75	1/0.97	11.3	12.4	12.1	279	336	407
19×1.0	1/1.13	12.7	14.0	14.0	345	407	480
19×1.5	1/1.38	13.7	15.2	14.8	459	525	609
19×2.5	1/1.78	16.0	17.2	16.8	707	813	894
24×0.5	1/0.80	11.7	12.8	12.5	255	312	378
24×0.75	1/0.97	13.2	14.4	14.0	348	414	489
24×1.0	1/1.13	15.2	16.4	16.0	423	486	535
24×1.5	1/1.38	15.9	17.1	17.0	586	674	741
24×2.5	1/1.78	19.1	20.6	20.1	901	1036	1139
27×0.5	1/0.80	12.2	13.7	13.2	280	339	410
27×0.75	1/0.97	13.4	14.9	14.5	384	452	533
27×1.0	1/1.13	14.5	16.5	16.0	469	539	593
27×1.5	1/1.38	16.3	18.0	17.5	651	749	824
27×2.5	1/1.78	19.5	21.0	20.5	1002	1153	1268
30×0.5	1/0.80	12.6	14.2	13.6	307	367	444
30×0.75	1/0.97	13.7	15.4	14.7	422	485	534
30×1.0	1/1.13	14.6	17.0	15.6	518	593	652
30×1.5	1/1.38	16.9	18.6	18.1	718	825	908
30×2.5	1/1.78	20.3	21.8	21.3	1106	1271	1399

Sequel table1 KFF、KFFP、KFFP2

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross	线芯结构(根数/直径) mm Core structure (No./Diameter)	最大外径 mm Max. outer diameter			参考重量kg/km Weight for reference		
		KFF	KFFP	KFFP2	KFF	KFFP	KFFP2
33×0.5	1/0.80	13.1	14.6	14.1	333	396	479
33×0.75	1/0.97	14.2	15.5	15.0	460	529	582
33×1.0	1/1.13	15.2	16.7	16.2	563	648	712
33×1.5	1/1.38	17.8	19.3	18.8	797	917	1008
33×2.5	1/1.78	21.1	--	--	1209	--	--
37×0.5	1/0.80	13.6	15.2	14.6	268	434	525
37×0.75	1/0.97	14.8	16.3	15.8	510	587	645
37×1.0	1/1.13	15.9	17.6	17.1	625	719	791
37×1.5	1/1.38	18.5	20.0	19.5	886	1018	1120

37×2.5	1/1.78	22.0	--	--	1346	--	--
44×0.5	1/0.80	14.3	15.6	15.1	433	497	547
44×0.75	1/0.97	16.9	18.4	17.9	615	707	777
44×1.0	1/1.13	18.1	19.6	19.1	752	865	951
44×1.5	1/1.38	20.9	21.9	--	1047	1205	--
48×0.5	1/0.80	14.5	16.0	15.5	467	537	590
48×0.75	1/0.97	17.2	18.7	18.2	663	763	839
48×1.0	1/1.13	18.4	19.9	19.4	813	935	1028
48×1.5	1/1.38	21.3	--	--	1134	--	--
52×0.5	1/0.80	15.0	16.5	16.0	502	577	634
52×0.75	1/0.97	17.7	19.2	18.7	713	820	902
52×1.0	1/1.13	18.9	20.4	19.9	875	1006	1107
52×1.5	1/1.38	21.9	--	--	1222	--	--

Sequel table 2 KFFR, KFFRP, KFFRP2

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross	线芯结构(根数/直径) mm Core structure (No./Diameter)	最大外径 mm Max. outer diameter			参考重量kg/km Weight for reference		
		KFF	KFFP	KFFP2	KFF	KFFP	KFFP2
2×0.5	16/0.20	5.1	6.3	5.7	38	55	74
2×0.75	24/0.20	5.9	7.1	6.5	50	68	92
2×1.0	32/0.20	6.3	7.5	6.9	58	79	104
2×1.5	30/0.25	6.7	7.9	7.3	72	94	121
2×2.5	49/0.25	8.5	9.7	9.1	104	132	169
3×0.5	16/0.20	5.4	6.6	6	48	66	85
3×0.75	24/0.20	6.4	7.6	7	64	86	85
3×1.0	32/0.20	6.8	8	7.4	76	98	125
3×1.5	30/0.25	7.3	8.5	7.9	97	121	155
3×2.5	49/0.25	8.9	10.1	9.5	144	173	216
4×0.5	16/0.20	5.9	7.1	6.5	59	79	102
4×0.75	24/0.20	7.0	8.2	7.6	80	102	131
4×1.0	32/0.20	7.6	8.8	8.2	96	121	155
4×1.5	30/0.25	8.1	9.3	8.7	123	149	191
4×2.5	49/0.25	9.8	11	10.4	181	213	266
5×0.5	16/0.20	6.4	7.6	7	69	91	117
5×0.75	24/0.20	7.7	8.9	8.3	96	121	155
5×1.0	32/0.20	8.4	9.6	9	116	143	183
5×1.5	30/0.25	8.9	10.1	9.5	149	178	228
5×2.5	49/0.25	10.6	11.8	11.2	219	255	319
7×0.5	16/0.20	7.2	8.4	7.8	90	115	147
7×0.75	24/0.20	8.5	9.7	9.1	125	153	196
7×1.0	32/0.20	9.1	10.3	9.7	151	182	233
7×1.5	30/0.25	9.7	10.9	10.3	197	230	288
7×2.5	49/0.25	11.8	13	12.4	303	343	422
8×0.5	16/0.20	7.9	9.1	8.5	105	133	164
8×0.75	24/0.20	9.2	10.4	9.8	145	176	215
8×1.0	32/0.20	9.9	11.1	10.5	177	210	254
8×1.5	30/0.25	10.6	11.8	11.2	231	267	315
8×2.5	49/0.25	12.8	14	13.4	324	418	485
10×0.5	16/0.20	9.1	10.3	9.7	124	156	192
10×0.75	24/0.20	10.8	12	11.4	173	210	256
10×1.0	32/0.20	11.6	12.8	12.2	227	269	325
10×1.5	30/0.25	12.4	13.6	13	294	350	413
10×2.5	49/0.25	15.4	16.6	16	438	507	588
12×0.5	16/0.20	9.4	10.6	10	142	172	212
12×0.75	24/0.20	11.2	12.4	11.8	200	238	290
12×1.0	32/0.20	12.0	13.2	12.6	261	304	368
12×1.5	30/0.25	12.8	14	13.4	340	398	470
12×2.5	49/0.25	16.0	17.2	16.6	512	584	677



Sequel table 2 KFFR, KFFRP, KFFRP2

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross	线芯结构(根数/直径) mm Core structure (No./Diameter)	最大外径 mm Max. outer diameter			参考重量kg/km Weight for reference		
		KFF	KFFP	KFFP2	KFF	KFFP	KFFP2
14×0.5	16/0.20	9.9	11.0	10.6	162	196	241
14×0.75	24/0.20	10.7	11.8	11.4	244	286	349
14×1.0	32/0.20	12.8	13.9	13.5	298	355	430
14×1.5	30/0.25	13.7	14.8	14.4	390	452	533
14×2.5	49/0.25	16.3	17.4	17	597	687	756
16×0.5	16/0.20	10.4	11.5	11.1	181	217	267
16×0.75	24/0.20	12.4	13.5	13.1	274	318	388
16×1.0	32/0.20	13.5	14.6	14.2	335	396	479
16×1.5	30/0.25	14.5	15.6	15.2	440	506	597
16×2.5	49/0.25	17.2	18.3	17.9	625	719	791
19×0.5	16/0.20	11.0	12.1	11.7	225	265	323
19×0.75	24/0.20	13.3	14.4	14	318	385	466
19×1.0	32/0.20	14.3	15.4	15	389	454	536
19×1.5	30/0.25	14.8	15.9	15.5	507	583	641
19×2.5	49/0.25	18.3	19.4	19	792	850	1002
24×0.5	16/0.20	13.1	14.2	13.8	281	341	413
24×0.75	24/0.20	14.4	15.5	15.1	388	446	491
24×1.0	32/0.20	15.3	16.4	16	456	524	577
24×1.5	30/0.25	17.8	18.9	18.5	635	730	803
24×2.5	49/0.25	22.3	23.4	23	1009	--	--
27×0.5	16/0.20	13.4	14.5	14.1	308	370	448
27×0.75	24/0.20	14.4	15.5	15.1	429	494	543
27×1.0	32/0.20	15.3	16.4	16	505	581	639
27×1.5	30/0.25	17.8	18.9	18.5	705	811	892
27×2.5	49/0.25	22.3	23.4	23	1122	--	--
30×0.5	16/0.20	13.9	15	14.6	338	402	486
30×0.75	24/0.20	15.0	16.1	15.7	472	543	597
30×1.0	32/0.20	15.9	17	16.6	556	639	703
30×1.5	30/0.25	18.5	19.6	19.2	777	894	983
33×0.5	16/0.20	13.9	15	14.6	366	433	524
33×0.75	24/0.20	15.6	16.7	16.3	515	592	651
33×1.0	32/0.20	16.6	17.7	17.3	607	698	765
33×1.5	30/0.25	19.5	20.6	20.2	860	995	1101
37×0.5	16/0.20	14.5	15.6	15.2	420	480	530
37×0.75	24/0.20	16.2	17.3	16.9	568	650	720
37×1.0	32/0.20	17.3	18.4	18	670	775	855
37×1.5	30/0.25	20.3	21.4	21	965	1150	1215
44×0.5	16/0.20	16.3	17.4	17	495	570	625
44×0.75	24/0.20	18.5	19.6	19.2	685	785	870
44×1.0	32/0.20	19.7	20.8	20.4	810	935	1050
48×0.5	16/0.20	16.8	17.9	17.5	536	616	678
48×0.75	24/0.20	18.9	20.0	19.6	742	854	945
48×1.0	32/0.20	20.6	21.7	21.3	880	1108	1172
52×0.5	16/0.20	17.5	18.6	18.2	582	665	735
52×0.75	24/0.20	19.5	20.6	20.2	799	925	1015
52×1.0	32/0.20	20.8	21.9	21.5	945	1100	1205

## 九、交货长度

根据双方协议允许任何长度交货；  
长度计量误差不得超过±0.5%。

## Delivery length

Delivery length of cable depends on both agreements with  
length error allowance of ±0.5%.



## 计算机电缆 Computer Cable



计算机用屏蔽电缆（或称DCS系统用电缆）

Shielding Cable for Computer (Cable for DCS System)

本安计算机用屏蔽电缆（或称本安DCS系统用电缆）

Shielding Cable for Intrinsic Safety Computer (Cable for Intrinsic Safety DCS System)

# 计算机用屏蔽电缆 (或称DCS系统用电缆)

## Computer Shielded Cable (Cable for DSC system)

本产品适用于电子计算机系统、监控回路、自动化控制系统的信号传输及检测仪器、仪表连接用连接线。

It is used as connection cable of inspection devices and instruments with high demand on interference resistant performance in computer network and control system.

### 一、生产执行标准

企业标准及TICW6-2009.

### Executive standard

Enterprise Standard andTICW6-2009.

### 二、使用特性

1. 工作电压：交流50HZ，U<sub>0</sub>/U：300/500V；
2. 正常运行时，导体长期允许最高工作温度：聚氯乙烯绝缘电缆分+70℃、+105℃两种；聚乙烯绝缘电缆为+70℃；无卤低烟阻燃绝缘电缆为+70℃；交联聚乙烯绝缘为+90℃（绝缘交联类型可分为硅烷交联和辐照交联）；硅橡胶绝缘电缆+180℃；氟塑料绝缘电缆+200℃；
3. 最低环境温度：固定敷设-40℃；非固定敷设-15℃；安装敷设时环境温度：不低于0℃；
4. 电缆允许最小弯曲半径：金属带绕包屏蔽或钢丝、钢带铠装电缆不小于电缆外径的12倍；非铠装软电缆或编织屏蔽电缆不小于电缆外径的8倍。

### Operational performance

1. Working voltage: AC 50HZ U<sub>0</sub>/U：300/500V
2. Maximum long-term working temperature of conductor as following:  
PVC insulation: +70℃, +105℃.  
PE insulation: +70℃. LSZH insulation: +70℃.  
XLPE insulation: +90℃ (SI-XLPE/Irradiation XLPE)  
Silicone rubber insulation: +180℃.  
Fluoroplastic insulation: +200℃.
3. Lowest ambient temperature: fixed installation-40℃, non-fixed installation -15℃, installation temperature: above 0℃.
4. Allowed Min. bending radius: no less than 12 times OD of cable with metal tape wrapped shielding or steel wire/tape armored, no less than 8 times that of cable OD for non-armored flexible cable or braided shielding cable.

### 三、型号名称及含义

### Type, Description and Definition

举例：DJ Y P3 V P3 32



绝缘或护套材料：F—氟塑料绝缘或护套

G—硅橡胶绝缘或护套

Y—聚乙烯挤包绝缘或护套

V—聚氯乙烯挤包绝缘或护套

YJ—交联聚乙烯挤包绝缘。

阻燃性能分：ZA/ZRA—A类阻燃（A类阻燃性能最佳）

ZB/ZRB—B类阻燃

ZC/ZRC、ZR—C类阻燃

NH—耐火型。

Insulation or sheath material:

F means fluoroplastic insulation or sheath

G means silicone rubber insulation or sheath

Y means PE extruded insulation or sheath

V means PVC extruded insulation or sheath

YJ means XLPE extruded insulation

Flame retardant performance category:

ZRA: category A (the best)

ZRB: category B

ZRC & ZR: category C

NH: Fire-resistant

铠装结构：22—钢带铠装聚乙烯护套

23—钢带铠装聚乙烯护套

32—圆形镀锌低碳钢丝缠绕铠装聚乙烯护套

33—圆形镀锌低碳钢丝缠绕铠装聚乙烯护套

屏蔽材料：P—铜线编织

P1—铜带铜线编织

P2—铜塑复合带绕包

P3—铝塑复合带绕包

导体种类：A—单根导体（型号中省略）

B—七根绞合导体（在规格后面加“B”表示）

R—多根绞合导体

Armor structure:

22 means steel tape armor, PVC outer sheath

23 means steel tape armor, PE outer sheath

32 means round galvanized low carbon steel wire wrapping, armor, PVC

outer sheath

33 means round galvanized low carbon steel wire wrapping, armor, PE

outer sheath

Shielding material:

P means copper wire braiding

P1 means tinned copper wire braiding

P2 means copper-plastic compound tape wrapping

P3 means aluminum-plastic compound tape wrapping

structure of conductor:

A means single conductor (omitted in type)

B means 7 stranded conductor ("B" shall be added after specification)

R means multi-stranded conductor

#### 四、基本型号及名称

#### Basic Type and Description

序号 No.	型号 Type	电缆名称 Description
1	DJYVP	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织总屏蔽计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper wire braided general shielding
2	DJYVPR	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织总屏蔽计算机软电缆 Computer flexible cable with Cu core, PE insulation, PVC sheath, copper wire braided general shielding
3	DJYVP	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏蔽计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper wire braided individual shielding
4	DJYVPR	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏蔽计算机软电缆 Computer flexible cable with Cu core, PE insulation, PVC sheath, copper wire braided individual shielding
5	DJYVPV	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏总屏计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper wire braided general & individual shielding
6	DJYVPVR	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏总屏计算机软电缆 Computer flexible cable with Cu core, PE insulation, PVC sheath, copper wire braided general & individual shielding
7	DJYVP2	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包总屏蔽计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping general shielding
8	DJYVP2R	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包总屏蔽计算机软电缆 Computer flexible cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping general shielding
9	DJYVP2V	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏蔽计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping individual shielding
10	DJYVP2VR	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏蔽计算机软电缆 Computer flexible cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping individual shielding
11	DJYVP2VP2	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping individual & general shielding
12	DJYVP2VP2R	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏计算机软电缆 Computer flexible cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping individual & general shielding
13	DJYVP3	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包总屏蔽计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping general shielding
14	DJYVP3R	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包总屏蔽计算机软电缆 Computer flexible cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping general shielding
15	DJYVP3V	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包分屏蔽计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping individual shielding

16	DJYP3VR	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包分屏蔽计算机软电缆 Computer flexible cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping individual shielding
17	DJYP3VP3	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包分屏总屏蔽计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping individual & general shielding
18	DJYP3VP3R	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包分屏总屏蔽计算机软电缆 Computer soft cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping individual & general shielding
19	DJYVP22	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper wire braided general shielding, steel tape armoring
20	DJYVP22	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper wire braided individual shielding, steel tape armoring
21	DJYVP22	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper wire braided individual & general shielding, steel tape armoring
22	DJYVP2-22	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping, general shielding, steel tape armoring
23	DJYP2V22	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping, individual shielding, steel tape armoring
24	DJYP2VP2-22	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping, individual & general shielding, steel tape armoring
25	DJYVP3-22	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping, general shielding, steel tape armoring
26	DJYP3V22	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包分屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping, individual shielding, steel tape armoring
27	DJYP3VP3-22	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包分屏总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping, individual & general shielding, steel tape armoring
28	DJYVP32	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper wire braided general shielding, steel wire armoring
29	DJYVP32	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper wire braided individual shielding, steel wire armoring
30	DJYVP32	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper wire braided individual & general shielding, steel wire armoring
31	DJYVP2-32	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping, general shielding, steel wire armoring
32	DJYP2V32	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping, individual shielding, steel wire armoring
33	DJYP2VP2-32	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, copper-plastic compound tape wrapping, general & individual shielding, steel wire armoring
34	DJYVP3-32	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包分屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping, general shielding, steel wire armoring
35	DJYP3V32	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包分屏总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping, individual shielding, steel wire armoring
36	DJYP3VP3-32	铜芯聚乙烯绝缘聚氯乙烯护套铝塑复合带绕包分屏总屏蔽铜带铠装计算机电缆 Computer cable with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapping, general & individual shielding, steel wire armoring

## 五、规格范围

对数：1~24对。

每对芯数：二芯（称二线组）或三芯（称三线组）；

导体截面：0.5mm<sup>2</sup>、0.75mm<sup>2</sup>、1.0mm<sup>2</sup>、1.5mm<sup>2</sup>、2.5mm<sup>2</sup>。

## Specifications range

Pair No.: 1~24 pairs.

Core No. per pair: 2 cores (equal to 2 wire group) or 3 cores (equal to 3 wire group).

Cross-sectional area of conductor: 0.5mm<sup>2</sup>, 0.75mm<sup>2</sup>, 1.0mm<sup>2</sup>, 1.5mm<sup>2</sup>, 2.5mm<sup>2</sup>.

## 六、主要技术参数

### 1、20℃导体直流电阻；

### Main Technical Parameter

#### DC Resistance of Conductor at 20℃

导体标称截面mm <sup>2</sup> Nominal cross-sectional area of conductor	导体根数/单丝直径mm Number of conductors/ diameter of per conductor			20℃时导体直流电阻Ω/km DC resistance of conductor at 20℃	
	A	B	R	A, B	R
0.5	1/0.80	7/0.30	16/0.20	≤36.0	≤39.0
0.75	1/0.97	7/0.37	24/0.20	≤24.5	≤26.0
1.0	1/1.13	7/0.43	32/0.20	≤18.1	≤19.5
1.5	1/1.38	7/0.52	30/0.25	≤12.1	≤13.3
2.5	1/1.78	7/0.68	48/0.25	≤7.41	≤7.98

### 2、20℃绝缘电阻

### Insulation Resistance at 20℃

性能项目 Performance project	PVC绝缘 PVC insulation	PE、XLPE绝缘 PE、XLPE insulation
20℃时绝缘电阻MQ.km Conductor DC insulation at 20℃	≥25	≥500

3、电缆应经受工频交流电压试验：1000V/1min绝缘不发生击穿，试验温度为环境温度。

Cable shall endure A.C. voltage test of 1000V under power frequency for 1min without puncture of insulation. And testing temperature is environment temperature.

## 七、电缆计算外径(供参考)

## Calculated Outer Diameter of Cable (for reference)

对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable			对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable		
		DJYJV DJYJV DJYJVPV	DJYVP DJYVP DJYJVP	DJYVPV DJYVPV DJYJVPV			DJYJV DJYJV DJYJVPV	DJYVP DJYVP DJYJVP	DJYVPV DJYVPV DJYJVPV
1×2×0.5	A	6.5	6.5	—	8×2×1.5	A	20.0	19.0	20.4
1×2×0.75		7.2	7.2	—	8×2×2.5		23.4	22.4	23.9
1×2×1.0		7.5	7.8	—	10×2×0.5		18.5	16.5	19.2
1×2×1.5		8.5	8.5	—	10×2×0.75		19.6	18.5	20.1
1×2×2.5		9.2	9.2	—	10×2×1.0		20.5	19.2	21.4
2×2×0.5		10.5	10.0	11.2	10×2×1.5		22.2	21.1	22.7
2×2×0.75		11.0	10.5	11.5	10×2×2.5		25.7	24.5	26.7
2×2×1.0		11.7	11.4	12.6	12×2×0.5		19.3	17.4	20.1
2×2×1.5		12.8	12.1	13.3	12×2×0.75		20.6	19.4	21.1
2×2×2.5		15.0	14.7	15.5	12×2×1.0		22.0	20.8	22.5
3×2×0.5		11.5	10.8	12.2	12×2×1.5		23.4	22.2	23.9
3×2×0.75		12.1	11.6	13.0	12×2×2.5		27.6	26.4	28.1
3×2×1.0		13.3	12.3	13.8	14×2×0.5		20.3	18.8	21.0
3×2×1.5		14.2	13.6	14.6	14×2×0.75		21.5	20.3	22.0
3×2×2.5		16.5	15.8	17.0	14×2×1.0		23.0	21.8	23.5
4×2×0.5		12.8	11.6	13.5	14×2×1.5		24.5	23.3	25.0
4×2×0.75		13.5	13.0	14.0	14×2×2.5		29.5	27.7	30.0
4×2×1.0		14.4	13.9	14.9	16×2×0.5		21.8	20.0	22.5
4×2×1.5		15.3	14.7	15.8	16×2×0.75		23.1	21.6	23.6
4×2×2.5		18.5	17.4	19.0	16×2×1.0		24.7	23.2	25.2
5×2×0.5		13.6	13.0	14.3	16×2×1.5		26.3	24.8	26.8
5×2×0.75		14.4	13.6	14.9	16×2×2.5		31.0	30.2	32.2
5×2×1.0		15.4	14.6	15.9	(18)19×2×0.5		23.5	21.8	24.3
5×2×1.5		16.3	15.6	16.8	(18)19×2×0.75		25.1	23.4	25.6
5×2×2.5		19.8	19.1	20.3	(18)19×2×1.0		26.9	25.2	27.4
(6)7×2×0.5		14.6	13.6	15.3	(18)19×2×1.5		29.2	26.9	29.7
(6)7×2×0.75		15.5	14.5	15.5	(18)19×2×2.5		34.9	32.8	35.4
(6)7×2×1.0		16.2	15.2	16.5	24×2×0.5		26.5	24.0	27.0
(6)7×2×1.5		18.2	16.2	17.5	24×2×0.75		28.1	26.1	29.2
(6)7×2×2.5		21.0	19.8	21.5	24×2×1.0		30.7	28.1	31.2
8×2×0.5		16.0	15.0	16.5	24×2×1.5		32.7	30.7	33.2
8×2×0.75		17.0	16.0	18.0	24×2×2.5		39.1	37.1	40.0
8×2×1.0	18.3	17.2	19.2	/	/	/	/		

备注：①铜塑复合带屏蔽型及铝塑复合带屏蔽型的电缆外径略小于铜丝编织屏蔽型电缆外径0.5mm范围；

②铜塑复合带屏蔽型电缆及铝塑复合带屏蔽型电缆的外径可以按相同设计考虑。

Note: 1. Outer diameter of cable with copper(aluminum)-plastic compound tape shielding is smaller by 0.5mm than that with copper wire braided shielding.

2. Outer diameter of cable with copper-plastic compound tape shielding and cable with aluminum-plastic compound tape shielding can be designed with similar consideration.



对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable			对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable		
		DJYPVR DJYVPR DJYJVPVR	DJYVPR DJYVPR DJYJVPVR	DJYVPVR DJYVPR DJYJVPVR			DJYPVR DJYVPR DJYJVPVR	DJYVPR DJYVPR DJYJVPVR	DJYVPVR DJYVPR DJYJVPVR
1×2×0.5	R	7.0	7.0	-	8×2×1.5	R	21.9	21.0	22.4
1×2×0.75		7.7	7.7	-	8×2×2.5		25.4	24.5	25.9
1×2×1.0		8.2	8.2	-	10×2×0.5		19.0	17.3	19.8
1×2×1.5		9.0	9.0	-	10×2×0.75		21.3	20.1	21.8
1×2×2.5		10.2	10.2	-	10×2×1.0		22.6	21.4	23.1
2×2×0.5		11.0	10.5	11.5	10×2×1.5		24.6	23.4	25.1
2×2×0.75		11.9	11.3	12.8	10×2×2.5		29.2	27.4	29.7
2×2×1.0		13.0	12.2	13.5	12×2×0.5		20.6	18.8	21.0
2×2×1.5		14.1	13.7	14.6	12×2×0.75		22.4	21.1	22.9
2×2×2.5		16.3	15.9	16.2	12×2×1.0		23.8	22.5	24.3
3×2×0.5		12.0	11.2	12.8	12×2×1.5		25.9	24.6	26.4
3×2×0.75		13.4	12.9	13.9	12×2×2.5		30.7	29.4	31.2
3×2×1.0		14.2	13.7	14.7	14×2×0.5		21.5	19.7	22.0
3×2×1.5		15.4	14.9	15.9	14×2×0.75		23.5	22.1	24.0
3×2×2.5		18.4	17.4	18.9	14×2×1.0		25.0	23.6	25.5
4×2×0.5		13.3	11.9	14.0	14×2×1.5		27.2	25.8	27.7
4×2×0.75		14.6	14.0	15.1	14×2×2.5		32.3	30.8	32.8
4×2×1.0		15.5	14.9	16.0	16×2×0.5		22.6	21.1	23.4
4×2×1.5		16.8	16.2	17.3	16×2×0.75		25.1	23.6	25.6
4×2×2.5		20.1	19.5	20.6	16×2×1.0		26.7	25.2	27.2
5×2×0.5		14.3	13.1	15.0	16×2×1.5		29.7	27.6	30.2
5×2×0.75		15.5	14.9	16.0	16×2×2.5		34.9	33.0	35.4
5×2×1.0		16.5	15.9	17.0	(18)19×2×0.5		24.5	22.9	25.4
5×2×1.5		18.5	17.3	19.0	(18)19×2×0.75		27.3	26.2	27.8
5×2×2.5		21.4	20.7	21.9	(18)19×2×1.0		29.7	27.9	30.2
(6) 7×2×0.5		15.3	14.1	16.0	(18)19×2×1.5		32.3	30.6	32.8
(6) 7×2×0.75		16.1	15.5	16.6	(18)19×2×2.5		38.0	36.2	38.5
(6) 7×2×1.0		17.1	16.5	17.6	24×2×0.5		27.6	25.5	28.2
(6) 7×2×1.5		19.2	18.5	19.7	24×2×0.75		31.2	29.2	31.7
(6) 7×2×2.5		22.2	21.5	22.7	24×2×1.0		33.2	31.2	33.7
8×2×0.5		16.9	15.5	17.5	24×2×1.5		36.6	34.6	37.1
8×2×0.75		19.0	18.1	19.5	24×2×2.5		43.0	41.0	43.5
8×2×1.0	20.2	19.3	20.7	/	/	/	/		

备注：①铜塑复合带屏蔽型及铝塑复合带屏蔽型的电缆外径略小于铜丝编织屏蔽型电缆外径约0.5mm范围；  
②铜塑复合带屏蔽型电缆及铝塑复合带屏蔽型电缆的外径可以按相同设计考虑；  
③R类导体的电缆外径略小于R类导体的电缆外径约0.5~1mm范围内。

Note: 1. Outer diameter of cable with copper(aluminum)-plastic compound tape shielding is smaller by 0.5mm than that with copper wire braided shielding.  
2. Cable with copper-plastic compound tape shielding and cable with aluminum-plastic compound tape shielding can be designed with similar consideration.  
3. The outer diameter of the cable of class B conductor is less than that of class R conductor, which is within the range of 0.5~1mm.

对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable			对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable		
		DJYVPV22 DJVPV22 DJYJPV22	DJYVP22 DJYVP22 DJYJVP22	DJYVPV22 DJYVPV22 DJYJVPV22			DJYVPV22 DJYVPV22 DJYJPV22	DJYVP22 DJYVP22 DJYJVP22	DJYVPV22 DJYVPV22 DJYJVPV22
		1×2×0.5	10.4	10.4			-	8×2×1.5	22.5
1×2×0.75	10.8	10.8	-	8×2×2.5	26.0	25.4	27.3		
1×2×1.0	11.3	11.3	-	10×2×0.5	21.1	19.9	21.6		
1×2×1.5	11.8	11.8	-	10×2×0.75	22.6	21.5	23.1		
1×2×2.5	13.1	13.1	-	10×2×1.0	23.5	22.8	24.4		
2×2×0.5	13.7	13.3	14.2	10×2×1.5	25.2	24.1	25.7		
2×2×0.75	14.4	14.0	14.9	10×2×2.5	29.5	29.1	30.7		
2×2×1.0	15.1	14.5	15.6	12×2×0.5	22.0	20.7	22.5		
2×2×1.5	15.8	15.5	16.3	12×2×0.75	23.6	22.4	24.1		
2×2×2.5	18.6	18.3	19.1	12×2×1.0	25.0	23.8	25.5		
3×2×0.5	14.6	13.6	15.1	12×2×1.5	26.0	25.2	27.3		
3×2×0.75	15.5	15.0	16.0	12×2×2.5	31.0	30.4	32.6		
3×2×1.0	16.3	15.8	16.8	14×2×0.5	22.9	21.5	23.4		
3×2×1.5	17.1	16.6	17.6	14×2×0.75	24.5	23.3	25.0		
3×2×2.5	20.1	19.6	20.6	14×2×1.0	26.0	24.8	26.9		
4×2×0.5	15.5	14.4	16.0	14×2×1.5	27.9	26.7	28.4		
4×2×0.75	16.5	16.0	17.0	14×2×2.5	32.5	31.7	33.9		
4×2×1.0	17.4	16.9	18.5	16×2×0.5	24.2	22.7	24.7		
4×2×1.5	18.9	18.3	19.4	16×2×0.75	26.1	24.6	27.0		
4×2×2.5	21.5	21.0	22.0	16×2×1.0	28.1	26.2	29.2		
5×2×0.5	16.4	15.2	16.9	16×2×1.5	30.3	28.2	30.8		
5×2×0.75	17.4	16.6	18.5	16×2×2.5	35.5	34.5	36.5		
5×2×1.0	19.0	17.6	19.5	(18)19×2×0.5	26.4	24.3	26.9		
5×2×1.5	19.9	19.2	20.4	(18)19×2×0.75	29.1	26.8	29.6		
5×2×2.5	22.8	22.1	23.3	(18)19×2×1.0	30.9	29.2	31.4		
(6)7×2×0.5	17.9	17.1	18.4	(18)19×2×1.5	33.1	30.9	33.6		
(6)7×2×0.75	18.6	17.2	19.1	(18)19×2×2.5	38.8	37.1	39.7		
(6)7×2×1.0	19.6	18.8	20.1	24×2×0.5	29.7	27.1	30.2		
(6)7×2×1.5	20.6	19.8	21.1	24×2×0.75	32.1	30.1	33.1		
(6)7×2×2.5	23.6	22.8	24.1	24×2×1.0	35.0	32.1	35.5		
8×2×0.5	19.3	18.3	19.8	24×2×1.5	37.0	35.0	37.5		
8×2×0.75	20.6	19.6	21.1	24×2×2.5	43.6	41.6	44.1		
8×2×1.0	21.7	20.8	22.2	/	/	/	/		

备注：①铜塑复合带屏蔽型及铝塑复合带屏蔽型的电缆外径小于铜丝编织屏蔽型电缆外径0.5mm范围；  
②铜塑复合带屏蔽型电缆及铝塑复合带屏蔽型电缆的外径可以按相同设计考虑；  
③铜丝编织型电缆外径在铜带铠装型电缆外径基础上增1-1.5mm。

Note: 1. Outer diameter of cable with copper(aluminum)-plastic compound tape shielding is smaller by 0.5mm than that with copper wire braided shielding.  
2. Outer diameter of cable with copper-plastic compound tape shielding and cable with aluminum-plastic compound tape shielding can be designed with similar consideration.  
3. Outer diameter of cable with steel wire armor is added by 1-1.5mm on the basis of that with steel tape armor.

对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable			对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable		
		DJYVP DJYVP DJYJVP	DJYVP DJYVP DJYJVP	DJYVP DJYVP DJYJVP			DJYVP DJYVP DJYJVP	DJYVP DJYVP DJYJVP	DJYVP DJYVP DJYJVP
1×3×0.5	A	6.8	6.8	-	8×3×1.5	A	22.0	21.0	22.5
1×3×0.75		7.56	7.5	-	8×3×2.5		25.7	24.7	26.2
1×3×1.0		8.1	8.1	-	10×3×0.5		19.9	18.6	20.4
1×3×1.5		8.8	8.8	-	10×3×0.75		21.8	20.6	22.5
1×3×2.5		10.0	10.0	-	10×3×1.0		23.3	22.0	23.8
2×3×0.5		10.9	10.5	11.4	10×3×1.5		25.1	23.8	25.6
2×3×0.75		11.9	11.5	12.8	10×3×2.5		30.0	28.1	30.5
2×3×1.0		13.1	12.7	13.6	12×3×0.5		20.9	19.5	21.4
2×3×1.5		14.0	13.6	14.5	12×3×0.75		22.8	21.5	23.3
2×3×2.5		16.3	15.9	16.8	12×3×1.0		24.4	23.0	24.9
3×3×0.5		12.3	11.3	12.8	12×3×1.5		26.3	24.9	26.8
3×3×0.75		13.4	12.8	13.9	12×3×2.5		31.4	30.1	31.9
3×3×1.0		14.3	13.6	14.8	14×3×0.5		21.8	20.3	22.3
3×3×1.5		15.3	14.7	15.8	14×3×0.75		23.9	22.4	24.4
3×3×2.5		18.4	17.2	18.9	14×3×1.0		25.5	24.0	26.0
4×3×0.5		13.2	12.6	13.7	14×3×1.5		27.5	26.0	28.0
4×3×0.75		14.5	13.8	15.0	14×3×2.5		32.9	31.4	33.4
4×3×1.0		15.5	14.7	16.0	16×3×0.5		23.2	21.6	23.7
4×3×1.5		16.6	15.9	17.1	16×3×0.75		25.4	23.8	25.9
4×3×2.5		20.0	19.3	20.5	16×3×1.0		27.2	25.5	27.7
5×3×0.5		14.2	13.4	14.7	16×3×1.5		29.9	27.6	30.4
5×3×0.75		15.4	14.6	15.9	16×3×2.5		35.5	33.4	36.0
5×3×1.0		16.4	15.6	16.9	(18)19×3×0.5		25.1	23.2	25.6
5×3×1.5		17.6	16.8	18.7	(18)19×3×0.75		27.5	25.7	28.0
5×3×2.5		21.2	20.4	21.7	(18)19×3×1.0		30.0	27.6	30.5
(6)7×3×0.5		15.1	14.2	15.6	(18)19×3×1.5		32.3	30.5	32.8
(6)7×3×0.75		17.0	16.1	17.5	(18)19×3×2.5		38.4	36.6	38.9
(6)7×3×1.0		18.8	17.2	19.3	24×3×0.5		28.5	25.8	29.0
(6)7×3×1.5		20.2	19.2	20.7	24×3×0.75		31.2	29.1	31.7
(6)7×3×2.5		23.5	22.6	24.0	24×3×1.0		33.4	31.2	34.3
8×3×0.5		17.6	15.9	18.1	24×3×1.5		36.4	34.3	36.9
8×3×0.75		19.2	17.6	19.7	24×3×2.5		43.2	41.0	43.7
8×3×1.0	20.5	19.4	21.0	/	/	/	/		

备注：①铜塑复合带屏蔽型及铝塑复合带屏蔽型的电缆外径略小于铜丝编织屏蔽型电缆外径0.5mm范围；

②铜塑复合带屏蔽型电缆及铝塑复合带屏蔽型电缆的外径可以按相同设计考虑。

Note: 1. Outer diameter of cable with copper(aluminum)-plastic compound tape shielding is smaller by 0.5mm than that with copper wire braided shielding.

2. Outer diameter of cable with copper-plastic compound tape shielding and cable with aluminum-plastic compound tape shielding can be designed with similar consideration.

对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable			对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable		
		DJYJVR DJYJVR DJYJVR	DJVJPR DJVJPR DJVJPR	DJYJVPR DJYJVPR DJYJVPR			DJYJVR DJYJVR DJYJVR	DJVJPR DJVJPR DJVJPR	DJYJVPR DJYJVPR DJYJVPR
1×3×0.5	R	7.3	7.3	-	8×3×1.5	R	24.2	23.2	24.7
1×3×0.75		8.0	8.0	-	8×3×2.5		27.9	26.9	29.0
1×3×1.0		8.6	8.6	-	10×3×0.5		20.6	19.3	21.1
1×3×1.5		9.3	9.3	-	10×3×0.75		23.6	22.3	24.1
1×3×2.5		10.5	10.5	-	10×3×1.0		25.0	23.8	25.5
2×3×0.5		11.3	10.9	11.8	10×3×1.5		27.5	26.3	28.0
2×3×0.75		13.2	12.8	13.7	10×3×2.5		32.5	31.2	33.0
2×3×1.0		14.0	13.5	14.5	12×3×0.5		21.6	20.2	22.1
2×3×1.5		15.3	14.9	15.8	12×3×0.75		24.8	23.3	25.3
2×3×2.5		17.6	17.2	18.7	12×3×1.0		26.3	24.9	26.8
3×3×0.5		12.7	11.7	13.2	12×3×1.5		29.6	27.5	30.1
3×3×0.75		14.4	13.9	14.9	12×3×2.5		34.5	32.7	35.0
3×3×1.0		15.2	14.7	15.7	14×3×0.5		22.6	21.1	23.1
3×3×1.5		16.7	16.2	17.2	14×3×0.75		25.9	24.4	26.4
3×3×2.5		19.8	19.3	20.3	14×3×1.0		27.5	26.0	28.0
4×3×0.5		13.7	13.0	14.2	14×3×1.5		30.9	29.4	31.4
4×3×0.75		15.6	15.0	16.1	14×3×2.5		36.1	34.6	36.0
4×3×1.0		16.5	15.9	17.0	16×3×0.5		24.1	22.4	24.6
4×3×1.5		18.7	17.5	19.2	16×3×0.75		27.6	26.0	28.1
4×3×2.5		21.5	20.9	22.0	16×3×1.0		29.9	27.7	30.4
5×3×0.5		14.7	13.9	15.2	16×3×1.5		32.9	31.3	33.4
5×3×0.75		16.6	15.9	17.1	16×3×2.5		38.5	36.9	39.0
5×3×1.0		17.6	16.9	18.7	(18)19×3×0.5		26.0	24.2	26.5
5×3×1.5		19.7	19.2	20.4	(18)19×3×0.75		30.5	28.0	31.0
5×3×2.5		22.9	22.2	23.4	(18)19×3×1.0		32.3	30.5	32.8
(6)7×3×0.5		15.6	14.8	16.1	(18)19×3×1.5		36.0	33.8	36.5
(6)7×3×0.75		19.1	17.5	19.6	(18)19×3×2.5		42.1	40.2	42.6
(6)7×3×1.0		20.2	19.3	20.7	24×3×0.5		29.6	28.8	30.1
(6)7×3×1.5	22.2	21.2	22.7	24×3×0.75	34.3	31.8	34.8		
(6)7×3×2.5	25.5	24.6	26.0	24×3×1.0	36.4	34.3	36.9		
8×3×0.5	18.2	16.5	18.7	24×3×1.5	40.5	38.0	41.0		
8×3×0.75	20.8	19.7	21.3	24×3×2.5	47.5	45.4	48.0		
8×3×1.0	22.0	21.0	22.5	/	/	/	/		

备注：①铜塑复合带屏蔽型及铝塑复合带屏蔽型的电缆外径略小于铜丝编织屏蔽型电缆外径约0.5mm范围内；  
②铜塑复合带屏蔽型电缆及铝塑复合带屏蔽型电缆的外径可以按相同设计考虑；  
③B类导体的电缆外径略小于R类导体的电缆外径约0.5~1mm范围内。

Note: 1. Outer diameter of cable with copper(aluminum)-plastic compound tape shielding is smaller by 0.5mm than that with copper wire braided shielding.  
2. Outer diameter of cable with copper-plastic compound tape shielding and cable with aluminum-plastic compound tape shielding can be designed with similar consideration.  
3. Outer diameter of cable with conductor of class B is smaller by 0.5~1mm than that of category R.

对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable			对数×芯数×导体标称截面 mm <sup>2</sup> Pair number× Core number× Nominal cross-sectional area	导体种类 Conductor category	电缆计算外径 mm Calculated outer diameter of cable		
		DJYVPV22 DJYVPV22 DJYJPV22	DJYVP22 DJYVP22 DJYJVP22	DJYVPV22 DJYVPV22 DJYJVPV22			DJYVPV22 DJYVPV22 DJYJPV22	DJYVP22 DJYVP22 DJYJVP22	DJYVPV22 DJYVPV22 DJYJVPV22
		1×3×0.5	10.8	10.8			-	8×3×1.5	25.0
1×3×0.75	11.1	11.1	-	8×3×2.5	29.7	28.1	30.2		
1×3×1.0	11.6	11.6	-	10×3×0.5	23.8	22.5	24.3		
1×3×1.5	12.3	12.3	-	10×3×0.75	24.8	23.6	25.3		
1×3×2.5	13.5	13.5	-	10×3×1.0	26.7	25.0	27.2		
2×3×0.5	14.9	14.5	15.4	10×3×1.5	29.1	27.2	29.6		
2×3×0.75	15.3	14.9	15.8	10×3×2.5	33.4	32.1	34.3		
2×3×1.0	16.1	15.7	16.6	12×3×0.5	24.8	23.4	25.3		
2×3×1.5	17.0	16.6	17.5	12×3×0.75	25.8	24.5	26.3		
2×3×2.5	19.9	19.5	20.4	12×3×1.0	27.8	26.0	28.9		
3×3×0.5	15.9	15.3	16.4	12×3×1.5	30.3	28.3	30.8		
3×3×0.75	16.4	15.8	16.9	12×3×2.5	35.2	33.5	36.2		
3×3×1.0	17.3	16.6	18.4	14×3×0.5	26.2	24.3	26.7		
3×3×1.5	18.9	18.3	19.4	14×3×0.75	27.3	25.4	27.8		
3×3×2.5	21.4	20.8	21.9	14×3×1.0	29.5	27.4	30.0		
4×3×0.5	16.9	16.2	17.4	14×3×1.5	31.5	30.0	32.0		
4×3×0.75	17.5	16.8	18.6	14×3×2.5	37.2	35.2	37.7		
4×3×1.0	19.1	18.3	19.6	16×3×0.5	27.7	25.6	28.2		
4×3×1.5	20.2	19.5	20.7	16×3×0.75	29.4	27.2	29.9		
4×3×2.5	23.0	22.3	23.5	16×3×1.0	31.2	29.5	31.7		
5×3×0.5	18.5	17.1	19.0	16×3×1.5	33.3	31.6	33.8		
5×3×0.75	19.0	17.6	19.5	16×3×2.5	39.8	37.7	40.3		
5×3×1.0	20.0	19.2	20.5	(18)19×3×0.5	30.2	27.8	30.7		
5×3×1.5	21.2	20.4	21.7	(18)19×3×0.75	31.5	29.7	32.0		
5×3×2.5	24.2	23.4	24.7	(18)19×3×1.0	33.4	31.6	34.3		
(6)7×3×0.5	19.4	18.6	19.9	(18)19×3×1.5	36.6	34.3	37.1		
(6)7×3×0.75	20.6	19.7	21.1	(18)19×3×2.5	42.9	41.1	43.4		
(6)7×3×1.0	21.8	20.8	22.3	24×3×0.5	33.6	31.0	34.1		
(6)7×3×1.5	23.2	22.2	23.7	24×3×0.75	35.0	32.5	36.0		
(6)7×3×2.5	26.9	25.6	27.4	24×3×1.0	37.7	35.0	38.2		
8×3×0.5	21.4	20.3	21.9	24×3×1.5	40.9	38.2	41.4		
8×3×0.75	22.2	21.2	22.7	24×3×2.5	48.1	45.7	48.6		
8×3×1.0	23.5	22.4	24.0	/	/	/	/		

备注：①铜塑复合带屏蔽型及铝塑复合带屏蔽型的电缆外径略小于铜丝编织屏蔽型电缆外径约0.5mm范围；  
②铜塑复合带屏蔽型电缆及铝塑复合带屏蔽型电缆的外径可以按相同设计考虑；  
③铜丝铠装型电缆外径在铜带铠装型电缆外径基础上增加1-1.5mm。

Note: 1. Outer diameter of cable with copper(aluminum)-plastic compound tape shielding is smaller by 0.5mm than that with copper wire braided shielding.

2. Outer diameter of cable with copper-plastic compound tape shielding and cable with aluminum-plastic compound tape shielding can be designed with similar consideration.

3. Outer diameter of cable with steel wire armor is added by 1-1.5mm on the basis of that with steel tape armor.

# 本安计算机用屏蔽电缆（或称本安DCS系统用电缆）

## Intrinsic Safety Type Computer Shielding Cable (Intrinsic Safety Type Cable for DCS System)

本产品适用于石油、化工、电力、煤气工程、矿山等存在爆炸危险的场合以及其它防爆安全要求较高的场合，传输自动控制信号，该电缆具有低电容、低电感集散型仪表信号电缆，简称本安型DCS电缆，具有优异的屏蔽性能和抗干扰性能，因此防爆安全性明显高于一般DCS电缆和计算机控制电缆。

It is used to transmit automatic control signal in the environment not only with exploding danger such as petroleum, chemical plant, power, gas project and mine but also with high demand on explosion proof performance. It is decentralized type instrument signal cable with the feature of low capacitance & low inductance & good shielding performance and interference proof performance, which is also named as Intrinsic safety type cable for DCS system. So, its performance of explosion-proof & safety is apparently higher compared with common computer control cable and cable for DCS.

### 一、生产执行标准

企业标准。

### Executive standard

Enterprise standard.

### 二、使用特性

1. 交流额定电压U<sub>0</sub>/U：300/500V。
2. 电缆导体长期允许最高工作温度：聚氯乙烯/聚乙烯绝缘为70℃，交联聚乙烯绝缘为90℃，无卤低烟阻燃聚烯烃绝缘为70℃，硅橡胶为180℃，氟塑料为200℃；
3. 最低环境温度：固定敷设-40℃，非固定敷设-15℃，安装敷设时环境温度：不低于0℃；
4. 电缆允许弯曲半径：非铠装，编织屏蔽电缆不小于电缆外径的6倍，铠装电缆不小于电缆外径的12倍。

### Operational performance

1. AC rated voltage U<sub>0</sub>/U: 300/500V.
2. Max. temperature of cable conductor for long term working: 70°C is for cable with PVC/PE insulation, 90°C is for cable with XLPE insulation, 70°C is for cable with free halogen, low smoke, flame retardant polyolefin insulation, 180°C for cable with silicone rubber insulation, and 200°C for cable with fluoroplastic insulation.
3. Min. environment temperature is -40°C for fixed laying and -15°C for non-fixed laying. Environment temperature for installing is no less than 0°C.
4. Bending radius allowed by cable is no less than 6 times that of cable OD for unarmored braided shielding cable and not less 12 times that of cable OD for armored cable.

### 四、型号名称及含义

### Type, Description and Definition



绝缘或护套材料: Y—聚乙烯或无卤低烟阻燃聚丙烯挤包绝缘、护套;  
YJ—交联聚乙烯挤包绝缘

Insulation or sheath material:  
Y: PE insulation and sheath OR free halogen, low smoke, flame  
retardant, polyolefin extruded insulation & sheath  
YJ: XLPE extruded insulation

阻燃性能分: ZA—A类阻燃 (A类阻燃性能最佳)  
ZB—B类阻燃  
ZC—C类阻燃

Flame retardant performance category:  
ZRA: category A (the best)  
ZRB: category B  
ZRC: category C  
Prefix "ZRA-", "ZRB-", "ZRC-" should be added to the original type for  
cable with intrinsic safety type cable

本安阻燃型电缆在本型号前分别加 "IA" 表示即可。

铠装结构: 22—钢带铠装聚氯乙烯乙稀外护套  
23—铜带铠装聚氯乙烯外护套  
32—圆形镀锌低碳钢丝缠绕铠装聚氯乙烯乙稀外护套  
33—圆形镀锌低碳钢丝缠绕铠装聚乙烯乙稀外护套

Armor structure:  
22 means steel tape armor, PVC outer sheath  
23 means steel tape armor, PE outer sheath  
32 means round galvanized low carbon steel wire wrapping, armor,  
PVC outer sheath  
33 means round galvanized low carbon steel wire wrapping, armor,  
PE outer sheath

屏蔽材料: P—铜线编织  
P1—镀锡铜线编织  
P2—铜塑复合带绕包  
P3—铝塑复合带绕包

Shielding material:  
P means copper wire braiding  
P1 means tinned copper wire braiding  
P2 means copper-plastic compound tape wrapping  
P3 means aluminum-plastic compound tape wrapping

导体种类: A—单根导体 (在规格后面加 "B" 表示)  
B—七股绞合导体  
R—多根绞合导体

Conductor category:  
A means single conductor (omitted in type)  
B means 7 stranded conductor ("B" shall be added after specification)  
R means multi-stranded conductor

### 三、基本型号及名称

### Basic Type and Description

型号 Type	名称 Description
IA-DJYJVPV	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏总屏本安型DCS电缆 Intrinsic safety type cable for DCS system with Cu core, PE insulation, PVC sheath, copper wire braided general & individual shielding
IA-DJYJVPVR	铜芯聚乙烯绝缘聚氯乙烯护套铜线编织分屏总屏本安型DCS软电缆 Intrinsic safety type soft cable for DCS system with Cu core, PE insulation, PVC sheath, copper wire braided general & individual shielding
IA-DJYP3VP3	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏本安型DCS电缆 Intrinsic safety type cable for DCS system with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapped general & individual shielding
IA-DJYP3VP3R	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏本安型DCS软电缆 Intrinsic safety type soft cable for DCS system with Cu core, PE insulation, PVC sheath, aluminum-plastic compound tape wrapped general & individual shielding
IA-DJYP2VP2	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏本安型DCS电缆 Intrinsic safety type cable for DCS system with Cu core, PE insulation, PVC sheath, copper-plastics compound tape wrapped general & individual shielding
IA-DJYP2VP2R	铜芯聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏本安型DCS软电缆 Intrinsic safety type soft cable for DCS system with Cu core, PE insulation, PVC sheath, copper-plastics compound tape wrapped general & individual shielding
IA-DJYJVPV	铜芯交联聚乙烯绝缘聚氯乙烯护套铜线编织分屏总屏本安型DCS电缆 Intrinsic safety type cable for DCS system with Cu core, XLPE insulation, PVC sheath, copper wire braided general & individual shielding
IA-DJYJVPVR	铜芯交联聚乙烯绝缘聚氯乙烯护套铜线编织分屏总屏本安型DCS软电缆 Intrinsic safety type soft cable for DCS system with Cu core, XLPE insulation, PVC sheath, copper wire braided general & individual shielding
IA-DJYJP3VP3	铜芯交联聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏本安型DCS电缆 Intrinsic safety type cable for DCS system with Cu core, XLPE insulation, PVC sheath, aluminum-plastic compound tape wrapped general & individual shielding
IA-DJYJP3VP3R	铜芯交联聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏本安型DCS软电缆 Intrinsic safety type soft cable for DCS system with Cu core, XLPE insulation, PVC sheath, aluminum-plastic compound tape wrapped general & individual shielding
IA-DJYJP2VP2	铜芯交联聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏本安型DCS电缆 Intrinsic safety type cable for DCS system with Cu core, XLPE insulation, PVC sheath, copper-plastic compound tape wrapped general & individual shielding
IA-DJYJP2VP2R	铜芯交联聚乙烯绝缘聚氯乙烯护套铜塑复合带绕包分屏总屏本安型DCS软电缆 Intrinsic safety type soft cable for DCS system with Cu core, XLPE insulation, PVC sheath, copper-plastic compound tape wrapped general & individual shielding

WDZ-IA-DJYPYP	铜芯无卤低烟阻燃聚烯烃绝缘及护套铜线编织分屏总屏本安型DCS电缆 Intrinsic safety type cable for DCS system with Cu core, free halogen, low smoke, flame retardant, polyolefin insulation & sheath, copper wire braided general & individual shielding
WDZ-IA-DJYYP	铜芯无卤低烟阻燃聚烯烃绝缘及护套铜线编织分屏总屏本安型DCS软电缆 Intrinsic safety type soft cable for DCS system with Cu core, free halogen, low smoke, flame retardant, polyolefin insulation & sheath, copper wire braided general & individual shielding
WDZ-IA-DJYP3YP3	铜芯无卤低烟阻燃聚烯烃绝缘及护套铝塑复合带绕包分屏总屏本安型DCS电缆 Intrinsic safety type cable for DCS system with Cu core, free halogen, low smoke, flame retardant, polyolefin insulation & sheath, aluminum-plastic compound tape wrapped general & individual
WDZ-IA-DJYP3YP3R	铜芯无卤低烟阻燃聚烯烃绝缘及护套铝塑复合带绕包分屏总屏本安型DCS软电缆 Intrinsic safety type soft cable for DCS system with Cu core, free halogen, low smoke, flame retardant, polyolefin insulation & sheath, aluminum-plastic compound tape wrapped general & individual
WDZ-IA-DJYP2YP2	铜芯无卤低烟阻燃聚烯烃绝缘及护套铜塑复合带绕包分屏总屏本安型DCS电缆 Intrinsic safety type cable for DCS system with Cu core, free halogen, low smoke, flame retardant, polyolefin insulation & sheath, copper-plastic compound tape wrapped general & individual
WDZ-IA-DJYP2YP2R	铜芯无卤低烟阻燃聚烯烃绝缘及护套铜塑复合带绕包分屏总屏本安型DCS软电缆 Intrinsic safety type soft cable for DCS system with Cu core, free halogen, low smoke, flame retardant, polyolefin insulation & sheath, copper-plastic compound tape wrapped general & individual

## 五、规格范围

对数：1~24对。

每对芯数：二芯(称二线组)或三芯(称三线组)。

导体截面：0.5 mm<sup>2</sup>、0.75 mm<sup>2</sup>、1.0 mm<sup>2</sup>、1.5 mm<sup>2</sup>、2.5 mm<sup>2</sup>。

## Specifications range

Pair No.: 1~24 pairs.Core

No. per pair: 2 cores(equal to 2 wire group) or 3 cores(equal to 3 wire group).

Cross section area of conductor: 0.5mm<sup>2</sup>, 0.75mm<sup>2</sup>, 1.0mm<sup>2</sup>, 1.5mm<sup>2</sup>, 2.5mm<sup>2</sup>.

## 六、其他常见型号与本公司型号对照

Comparison between other common type and type of our company

其他型号 Other type	本厂型号 Type of our company
ia-K2YVR, ia-K3YVR, IJYPLVPLR, IJYP3VR-2	IA-DJYP3VP3R
ia-K2YV, ia-K3YV, IJYPLVPL, IJYP3V-2 ia-K2YV(EX), ia-K3YV(EX)	IA-DJYP3VP3
KJYVVP, IA-KJVVP	IA-DJYP3VP3

## 七、主要技术参数

## Main Technical Parameter

### 1、20°C导体直流电阻

DC resistance of conductor at 20°C

导体标称截面mm <sup>2</sup> Nominal cross-section area of conductor	导体根数/单丝直径mm Number of conductors/ diameter of per conductor			20°C时导体直流电阻Ω/km DC resistance of conductor at 20°C	
	A	B	R	A、B	R
0.5	1/0.80	7/0.30	16/0.20	≤36.0	≤39.0
0.75	1/0.97	7/0.37	24/0.20	≤24.5	≤26.0
1.0	1/1.13	7/0.43	32/0.20	≤18.1	≤19.5
1.5	1/1.38	7/0.52	30/0.25	≤12.1	≤13.3
2.5	1/1.78	7/0.68	49/0.25	≤7.41	≤7.98

### 2、20°C绝缘电阻

Insulation resistance at 20°C

性能项目 Performance item	PE类、XLPE绝缘 PE category, XLPE insulation
20°C时绝缘电阻MΩ.km Insulation resistance at 20°C	≥500



- 3、电缆应经受工频交流电压试验：1000V/1min绝缘不发生击穿，试验温度为环境温度；
- 4、工作电容（1KHZ）线芯与线芯 $\leq 90\text{PF}/\text{m}$ ；
- 5、分布电感（1KHZ） $\leq 0.6\mu\text{H}/\text{m}$ ；
- 6、电磁干扰感应电压（干扰磁场400A/m） $\leq 5\text{mV}$ ；
- 7、静电感应电压（静电电压20kV） $< 1\text{V}$ ；
- 8、辐射场透入强度（干扰场强120dB $\mu\text{V}$ ，干扰场频率200MHZ） $\leq 66\text{dB}\mu\text{V}$ 。

## 八、电缆外径参数

请参照计算机用屏蔽电缆的相关内容。

Cable shall endure A.C. voltage test of 1000V under power frequency for 1min without puncture of insulation. And testing temperature is environment temperature.  
Working capacitance(1KHZ)core to core  $\leq 90\text{PF}/\text{m}$   
Distributing inductance(1KHZ) $\leq 0.6\mu\text{H}/\text{m}$   
Inductive voltage of electromagnetic interference (interference magnetic field 400A/m): $\leq 5\text{mV}$   
Inductive voltage of electrostatic(Electrostatic voltage 20kV) $< 1\text{V}$   
Penetration stress of radiant field(stress of interference field is 120dB $\mu\text{V}$ ; frequency of interference field is 200MHZ ) $\leq 66\text{dB}\mu\text{V}$

## Parameter of cable OD

Please refer to relevant contents of computer shielding cable.



## 电气装备用电缆

Cable for electrical Equipment



聚氯乙烯绝缘电线电缆  
PVC Insulation Cable & Wire

通用橡套软电缆  
Flexible cable with for general purpose sheath

电焊机电缆  
Cable for electric welding machine

# 聚氯乙烯绝缘电缆 ( 电线 )

## Cable (wire) with PVC Insulation

该类产品中B系列产品适用于交流额定电压450/750V及以下的动力装置固定敷设用；R系列产品适用于交流额定电压300/500V及以下的家用电器，小型电动工具、仪器、仪表及动力照明用铜芯聚氯乙烯绝缘连接电缆（电线）。

### 一、生产执行标准

GB/T5023.1-7-2008，JB/T8734.1-5-2016等同采用IEC60227。

### 二、分类和型号

- 0-固定布线用无护套电缆；
- 01-一般用途单芯硬导体无护套电缆（60227IEC01）；
- 02-一般用途单芯软导体无护套电缆（60227IEC02）；
- 05-内部布线用导体温度为70℃的单芯实心导体无护套电缆（60227IEC05）；
- 06-内部布线用导体温度为70℃的单芯软导体无护套电缆（60227IEC06）；
- 07-内部布线用导体温度为90℃的单芯实心导体无护套电缆（60227IEC07）；
- 08-内部布线用导体温度为90℃的单芯软导体无护套电缆（60227IEC08）；
- 1-固定布线用护套电缆；
- 10-轻型聚氯乙烯护套电缆（60227IEC10）；
- 5-一般用途护套软电缆；
- 52-轻型聚氯乙烯护套软线（60227IEC52）；
- 53-普通聚氯乙烯护套软线（60227IEC53）。

### 三、产品型号中各字母代表意义

#### 1. 按用途分

- 固定敷设用电线（线）..... B
- 连接用软电线（电线）..... R
- 装饰照明用软线..... S

#### 2. 按材料特性分

- 铜导体..... 省略
- 聚氯乙烯绝缘..... V
- 聚氯乙烯护套..... V
- 耐油聚氯乙烯护套..... VY

#### 3. 按结构特性分

- 圆形..... 省略
- 扁形（型）..... B
- 双绞型..... S
- 屏蔽型..... P
- 软结构..... R

#### 4. 按耐热特性分

- 70℃..... 省略
- 90℃..... 90

B series of the product are used for fixed laying in powerplant of A.C rated voltage 450/750V or lower; R series of soft connection cable (wire) with cu core, PVC insulation. It is that suitable for household appliances, small electric tools, instruments and power lighting, with up to and including of AC rated voltage 300/500V.

### Executive standard

GB/T5023.1-7-2008,JB/T8734.1-5-2016(equal to IEC60227).

### Classification and Type as follows

- 0-Non-sheathed cable for fixed wiring
- 01-Single-core non-sheathed cable with rigid conductor for general purposes (60227IEC01)
- 02-Single-core non-sheathed cable with flexible conductor for general purposes (60227IEC02)
- 05-Single-core non-sheathed cable with solid conductor for internal wiring. (conductor temperature is 70℃) (60227IEC05)
- 06-Single-core non-sheathed cable with flexible conductor for internal wiring. (conductor temperature is 70℃) (60227IEC06)
- 07-Single-core non-sheathed cable with solid conductor for internal wiring. (conductor temperature is 90℃) (60227IEC07)
- 08-Single-core non-sheathed cable with flexible conductor for internal wiring. (conductor temperature is 90℃) (60227IEC08)
- 1-Cable with sheath for permanent wiring
- 10-Light PVC-sheathed cable (60227IEC10)
- 5-Flexible cable with sheath for general purpose
- 52-Light PVC-sheathed flexible wire (60227IEC52)
- 53-Ordinary (PVC)-sheathed flexible wire (60227IEC53)

### Code Meaning

- 1. Classified by usage
- Cable (wire) for fixed installation..... B
- Flexible cable (wire) for connection..... R
- Flexible wire for decorated lighting..... S
- 2. Classified by material performance
- Cu conductor..... Omitted
- PVC insulation..... V
- PVC sheath..... V
- Oil resistant PVC sheath..... VY
- 3. Classified by structure character
- Round type..... Omitted
- Flat type..... B
- Twisted-pair type..... S
- Shielding type..... P
- Soft structure..... R
- 4. Classified by heat resistant performance
- 70℃..... Omitted
- 90℃..... 90

## 四、型号名称及相应执行标准

Type, Description and Relevant Executive Standard.

型号 Type	名称 Description	芯数 Core number	生产范围mm <sup>2</sup> Production scope	额定电压 (V) Rated voltage	执行标准 Executive standard	
60227IEC01 (BV)	一般用途单芯硬导体无护套电缆 Single-core non-sheathed cable with rigid conductor for general purposes	1	1.5-400	450/750	GB/T5023.3	
60227IEC02 (RV)	一般用途单芯软导体无护套电缆 Single-core non-sheathed cable with flexible conductor for general purposes	1	1.5-240	450/750		
60227IEC05 (BV)	内部布线用导体温度为70℃的单芯实心导体无护套电缆 Single-core non-sheathed cable with solid conductor for internal wiring. (conductor temperature is 70℃)	1	0.5-1.0	300/500		
60227IEC06 (RV)	内部布线用导体温度为70℃的单芯软导体无护套电缆 Single-core non-sheathed cable with flexible conductor for internal wiring. (conductor temperature is 70℃)	1	0.5-1.0	300/500		
60227IEC07 (BV-90)	内部布线用导体温度为90℃的单芯实心导体无护套电缆 Single-core non-sheathed cable with solid conductor for internal wiring. (conductor temperature is 90℃)	1	0.5-2.5	300/500		
60227IEC08 (RV-90)	内部布线用导体温度为90℃的单芯软导体无护套电缆 Single-core non-sheathed cable with flexible conductor for internal wiring. (conductor temperature is 90℃)	1	0.5-2.5	300/500		
60227IEC10 (BVV)	轻型聚氯乙烯护套电缆 Light PVC-sheathed cable	2-5	1.5-35	300/500		GB/T5023.4
60227IEC52 (RVV)	轻型聚氯乙烯护套软线 Light PVC-sheathed flexible wire	2, 3	0.5, 0.75	300/300		GB/T5023.5
60227IEC53 (RVV)	普通聚氯乙烯护套软线 Ordinary (PVC-)sheathed flexible wire	2-5	0.75-2.5	300/500		
BV	铜芯聚氯乙烯绝缘电线 Wire with cu core, PVC insulation	1	0.75, 1.0	300/500	JB8734.2	
BLV	铝芯聚氯乙烯绝缘电线 Wire with aluminum core, PVC insulation	1	2.5-400	450/750		
BVR	铜芯聚氯乙烯绝缘软电线 Flexible wire with cu core, PVC insulation	1	2.5-70	450/750		
BVV	铜芯聚氯乙烯绝缘护套圆形电缆 Round type cable with Cu core, PVC insulation and sheath	1	0.75-10	300/500		
BLVV	铝芯聚氯乙烯绝缘护套圆形电缆 Round type cable with aluminum core, PVC insulation and sheath	1	2.5-10	300/500		
BVVVB	铜芯聚氯乙烯绝缘护套扁形电缆 Flat type cable with Cu core, PVC insulation and sheath	2, 3	0.75-10	300/500		
BLVVVB	铝芯聚氯乙烯绝缘护套扁形电缆 Flat type cable with aluminum core, PVC insulation and sheath	2, 3	2.5-10	300/500		
RVVP	铜芯聚氯乙烯绝缘屏蔽聚氯乙烯护套软电缆 (线) Flexible cable (wire) with Cu core, PVC insulation and shielding, PVC sheath	1, 2, 3	0.3-2.5 0.3-1.5	300/300		JB8734.5

## 五、使用条件

1. 长期允许工作温度应不超过：BV-90、RV-90型导体最高温度为90°C，其他型号为70°C。
2. 电缆（线）敷设时温度应不低于0°C。
3. 推荐的允许弯曲半径：电缆外径 < 25mm，应不小于4倍的电缆外径；电缆外径 ≥ 25mm，应不小于6倍的电缆外径。

## Working Condition

1. Max conductor temperature for long-term working is 90°C for BV-90、RV-90 type cable and 70°C for other types.
2. Ambient temperature for installing cable(wire) shall be no lower than 0°C.
3. Recommended bending radius:  
It is no less than 4 times of cable OD when cable OD is less than 25mm.  
It is no less than 6 times of cable OD when cable OD is at least more than 25mm.

## 六、规格尺寸（部分）

## Specication and Size (part)

### 60227IEC01 (BV)

导体标称截面mm <sup>2</sup> Nominal cross section area	导体种类 Conductor category	绝缘厚度标称值mm Nominal insulated thickness	外径上限mm Max. outer diameter	70°C时最小绝缘电阻MQ.km Min insulated resistance at 70°C
1.5	1	0.7	3.0	0.011
1.5	2	0.7	3.2	0.010
2.5	1	0.8	3.6	0.010
2.5	2	0.8	3.9	0.009
4	1	0.8	4.1	0.0085
4	2	0.8	4.4	0.0077
6	1	0.8	4.6	0.0070
6	2	0.8	5.1	0.0065
10	1	1.0	5.9	0.0070
10	2	1.0	6.4	0.0065
16	2	1.0	7.4	0.0050
25	2	1.2	9.2	0.0050
35	2	1.2	10.3	0.0040
50	2	1.4	11.5	0.0045
70	2	1.4	13.1	0.0035
95	2	1.6	15.3	0.0035
120	2	1.6	17.0	0.0032
150	2	1.8	18.7	0.0032
185	2	2.0	20.8	0.0032
240	2	2.2	23.4	0.0032
300	2	2.4	27.0	0.0030
400	2	2.6	30.0	0.0028

### 60227IEC02 (RV)

导体标称截面mm <sup>2</sup> Nominal cross section area	绝缘厚度标称值mm Nominal insulated thickness	外径上限mm Max. outer diameter	70°C时最小绝缘电阻MQ.km Min insulated resistance at 70°C
1.5	0.7	3.2	0.010
2.5	0.8	3.8	0.009
4	0.8	4.8	0.007
6	0.8	5.3	0.006
10	1.0	7.0	0.0056
16	1.0	7.9	0.0046
25	1.2	9.9	0.0044
35	1.2	11.2	0.0038
50	1.4	13.3	0.0037
70	1.4	14.9	0.0032
95	1.6	17.7	0.0032
120	1.6	19.5	0.0029
150	1.8	21.9	0.0029
185	2.0	24.9	0.0029
240	2.2	28.0	0.0028

**60227IEC05 (BV)**

导体标称截面mm <sup>2</sup> Nominal cross section area	绝缘厚度标称值mm Nominal insulated thickness	外径上限mm Max. outer diameter	70°C时最小绝缘电阻MQ.km Min insulated resistance at 70°C
0.5	0.6	2.2	0.015
0.75	0.6	2.4	0.012
1.0	0.6	2.6	0.011

**60227IEC06 (RV)**

导体标称截面mm <sup>2</sup> Nominal cross section area	绝缘厚度标称值mm Nominal insulated thickness	外径上限mm Max. outer diameter	70°C时最小绝缘电阻MQ.km Min insulated resistance at 70°C
0.5	0.6	2.4	0.013
0.75	0.6	2.6	0.011
1.0	0.6	2.8	0.010

**60227IEC07 (BV-90)**

导体标称截面mm <sup>2</sup> Nominal cross section area	绝缘厚度标称值mm Nominal insulated thickness	外径上限mm Max. outer diameter	70°C时最小绝缘电阻MQ.km Min insulated resistance at 70°C
0.5	0.6	2.2	0.015
0.75	0.6	2.4	0.013
1.0	0.6	2.6	0.012
1.5	0.7	3.1	0.011
2.5	0.8	3.7	0.009

**60227IEC08 (RV-90)**

导体标称截面mm <sup>2</sup> Nominal cross section area	绝缘厚度标称值mm Nominal insulated thickness	外径上限mm Max. outer diameter	70°C时最小绝缘电阻MQ.km Min insulated resistance at 70°C
0.5	0.6	2.4	0.013
0.75	0.6	2.6	0.012
1.0	0.6	2.8	0.010
1.5	0.7	3.3	0.009
2.5	0.8	4.0	0.009

注：其它规格结构及技术参数请参见GB5023-2008或JB/T8734-2012标准。

Note: Please refer to GB5023-2008 or JB/T8734-2012 standard for other specification and technical parameter.

**七、交货长度**

根据双方协议允许任何长度交货；  
长度计量误差为±0.5%。

**Deliver Length**

Delivery length of cable depends on both agreements with  
length error allowance of ±0.5%

# 通用橡套软电缆

## Soft Rubber Sheath Cable for General Purpose

本产品适用于交流额定电压450/750V及以下的家用电器、电动工具和各种移动电气设备。

It is used for household electrical appliance, electrical tools and various mobile electrical equipments with AC rated voltage to and including 450/750V.

### 一、生产执行标准

GB/T5013-2008, JB/T8735-2016.

### Executive standard

GB/T5013-2008, JB/T8735-2016.

### 二、使用特性

1、额定电压YZ、YZW型为300/500V、YC、YCW型为450/750V；

2、电缆允许工作温度应不超过65℃。

### Operational performance

1. Rated voltage 300/500V for YZ type and 450/750V for YC type.

2. Working temperature allowed by cable shall not exceed 65℃.

### 三、型号及名称及主要用途

### Type, Description and Main Application

型号 Type	名称 Description	主要用途 Main application
60245 IEC 53(YZ)	普通强度橡套软线 General type rubber sheath flexible cable	用于各种移动电器设备和工具 For various mobile electric devices and tools
60245 IEC 57(YZW)	普通氯丁或其他相当的合成弹性橡套软线 Flexible wire with Common type chloroprene (Or other equivalent synthetic elastomers) rubber sheath	用于各种移动电器设备和工具 For various mobile electric devices and tools
YZ YZW	中型橡套软电缆 Medium type rubber flexible cable	用于各种移动电器设备和工具 For various mobile electric devices and tools
60245 IEC 66(YCW)	重型氯丁或其他相当的合成弹性体橡套软电缆 Flexible cable with heavy type chloroprene (Or other equivalent synthetic elastomers) rubber sheath	用于各种移动电器设备，能承受较大的机械外力作用 Used for various portable electric equipment which can bear larger mechanical force effect.
YC YCW	重型橡套软电缆 Heavy type rubber flexible cable	用于各种移动电器设备，能承受较大的机械外力作用 Used for various portable electric equipment which can bear larger mechanical force effect.

### 四、规格范围

### Specification Range

型号 Type	额定电压V Rated voltage	芯数 Core number	标称截面mm <sup>2</sup> Nominal cross section area
YZ、YZW	300/500	2,3,4,5	0.75~2.5
YC、YCW	450/750	1	1.5~240
		2	1~25
		3	1~95
		4	1~150
		5	1~25



## 五、规格尺寸及技术参数如下表

## Specification, Size and Technical Parameter

Table 3 60245 IEC 53(YZ) 60245 IEC 57(YZW)

标称截面mm <sup>2</sup> Nominal cross section area	导体结构 Conductor structure 根/单线直径 Pieces / diameter of single piece	20℃导体电阻 sΩ/km Conductor resistance at 20℃	电缆外径参考 Cable OD for reference			
			2芯 2cores	3芯 3cores	4芯 4cores	5芯 5cores
0.75	24/0.20	26.0	5.7-7.4	6.2-8.1	6.8-8.8	7.6-9.9
1.0	32/0.20	19.5	6.1-8.0	6.5-8.5	7.1-9.3	8.0-10.3
1.5	30/0.25	13.3	7.6-9.8	8.0-10.4	9.0-11.6	9.8-12.7
2.5	49/0.25	7.98	9.0-11.6	9.6-12.4	10.7-13.8	11.9-15.3

Table 4 YZ YZW

标称截面mm <sup>2</sup> Nominal cross section area	导体结构 Conductor structure 根/单线直径 Pieces / diameter of single piece	20℃导体电阻 sΩ/km Conductor resistance at 20℃	电缆外径参考 Cable OD for reference			
			2芯 2cores	3芯 3cores	4芯 4cores	5芯 5cores
0.75	24/0.20	26.0	5.7-7.4	6.2-8.1	6.8-8.8	7.6-9.9
1.0	32/0.20	19.5	6.1-8.0	6.5-8.5	7.1-9.3	8.0-10.3
1.5	30/0.25	13.3	7.6-9.8	8.0-10.4	9.0-11.6	9.8-12.7
2.5	49/0.25	7.98	9.0-11.6	9.6-12.4	10.7-13.8	11.9-15.3

Table 5 60245 IEC 66(YCW)

标称截面mm <sup>2</sup> Nominal cross section area	导体结构 Conductor structure 根/单线直径 Pieces / diameter of single piece	20℃导体电阻 sΩ/km Conductor resistance at 20℃	电缆外径参考 Cable OD for reference				
			1芯 1cores	2芯 2cores	3芯 3cores	4芯 4cores	5芯 5cores
1.0	32/0.20	19.5	-	7.7-10.0	8.3-10.7	9.2-11.9	10.2-13.1
1.5	30/0.25	13.3	5.7-7.1	8.5-11.0	9.2-11.9	10.2-13.1	11.2-14.4
2.5	49/0.25	7.98	6.3-7.9	10.2-13.1	10.9-14.0	12.1-15.5	13.3-17.0
4	81/0.25	4.95	7.2-9.0	11.8-15.1	12.7-16.2	14.0-17.9	15.6-19.9
6	122/0.25	3.30	7.9-9.8	13.1-16.8	14.1-18.0	15.7-20.0	17.5-22.2
10	77/0.41	1.91	9.5-11.9	17.7-22.6	19.1-24.2	20.9-26.5	22.9-29.1
16	119/0.41	1.21	10.8-13.4	20.2-25.7	21.8-27.6	23.8-30.1	26.4-33.3
25	189/0.41	0.780	12.7-15.8	24.3-30.7	26.1-33.0	28.9-36.6	32.0-40.4
35	265/0.41	0.554	14.3-17.9	-	29.3-37.1	32.5-41.1	-
50	379/0.41	0.368	16.5-20.6	-	34.1-42.9	37.7-47.5	-
70	530/0.41	0.272	18.6-23.3	-	38.4-48.3	42.7-54.0	-
95	437/0.52	0.206	20.8-26.0	-	43.3-54.0	48.4-61.0	-
120	551/0.52	0.161	22.8-28.6	-	-	53.0-66.0	-
150	696/0.52	0.129	25.2-31.4	-	-	58.0-73.0	-
185	851/0.52	0.106	27.6-34.4	-	-	-	-
240	1073/0.52	0.0801	30.6-38.3	-	-	-	-

Table 6 YZ, YZW中型300/500 V橡套软电缆

芯数×导体标称 截面积mm <sup>2</sup> Core No.*Conductor nominal cross-sectional area	导体中单线 最大直径 mm The maximum diameter of a single line in a conductor	绝缘厚度 规定值 mm Specified value of insulation thickness	护套厚度 mm Sheath thickness	平均外径 mm Average outside diameter		20℃时导体电阻最大值 Ω/km Max. conductor resistance at 20℃		
				下限 Lower limit	上限 Upper limit	铜芯 Copper core	镀锡铜芯 Tinned copper core	
2×4	0.31	1.0	1.2	10.6	13.7	4.95	5.09	
2×6	0.31	1.0	1.3	10.6	15.1	3.30	3.39	
3×4	0.31	1.0	1.2	10.6	14.5	4.95	5.09	
3×6	0.31	1.0	1.3	10.6	16.1	3.30	3.39	
4×4	0.31	1.0	1.3	10.6	16.2	4.95	5.09	
4×6	0.31	1.0	1.4	10.6	17.9	3.30	3.39	
四芯 <sup>®</sup> (三大一小) Four core (three big and one small)	3×1.5+1×1	0.26/0.21	0.8/0.6	1.1	10.6	11.2	13.3	13.7
	3×2.5+1×1.5	0.26/0.26	0.9/0.8	1.2	10.6	13.3	7.98	8.21
	3×4+1×2.5	0.31/0.26	1.0/0.9	1.3	10.6	15.7	4.95	5.09
	3×6+1×4	0.31/0.31	1.0/1.0	1.4	10.6	17.5	3.30	3.39
五芯 Five core	5×4	0.31	1.0	1.4	10.6	17.9	4.95	5.09
	5×6	0.31	1.0	1.6	10.6	20.0	3.30	3.39
五芯 <sup>®</sup> (三大二小) Five core (three big and two small)	3×1.5+2×1	0.26/0.21	0.8/0.6	1.1	10.6	11.8	13.3	13.7
	3×2.5+2×1.5	0.26/0.26	0.9/0.8	1.2	10.6	14.2	7.98	8.21
	3×4+2×2.5	0.31/0.26	1.0/0.9	1.4	10.6	17.0	4.95	5.09
	3×6+2×4	0.31/0.31	1.0/1.0	1.5	10.6	19.2	3.30	3.39
五芯 <sup>®</sup> (四大一小) Five core (four big and one small)	4×1.5+1×1	0.26/0.21	0.8/0.6	1.1	10.6	12.3	13.3	13.7
	4×2.5+1×1.5	0.26/0.26	0.9/0.8	1.2	10.6	14.6	7.98	8.21
	4×4+1×2.5	0.31/0.26	1.0/0.9	1.4	10.6	17.5	4.95	5.09
	4×6+1×4	0.31/0.31	1.0/1.0	1.5	10.6	19.5	3.30	3.39
	6×0.75	0.21	0.6	1.0	10.6	10.7	26.0	26.7
六芯 Six core	6×1	0.21	0.6	1.1	10.6	11.5	19.5	20.0
	6×1.5	0.26	0.8	1.2	10.6	14.0	13.3	13.7
	6×2.5	0.26	0.9	1.4	10.6	16.9	7.98	8.21
	6×4	0.31	1.0	1.5	10.6	19.8	4.95	5.09
	6×6	0.31	1.0	1.7	10.6	22.1	3.30	3.39

注：四芯（三大一小）、五芯（三大二小）和五芯（四大一小）结构中  
小芯的直流电阻值与同型号相应截面面积主芯芯相同。

\* 四芯（三大一小）、五芯（三大二小）和五芯（四大一小）结构中导体  
电阻为主线芯导体电阻。

In the 4 core (3 large and one small), 5 core (3 big 1 small) and 5 core (4  
large 1 small) structure, the DC resistance of the small core is the same as  
that of the main core of the same section area type.

\* In the 4 core (3 big and 1 small) 5 core (3 big and 2 small) and 5 core (4  
big and 1 small), the Conductor resistance is the master core conductor  
resistance.

Table 7 YC重型450/750 V橡套软电缆

芯数×导体标称 截面积mm <sup>2</sup> Core No.×Conductor nominal cross-sectional area	导体中单线 最大直径 mm The maximum diameter of a single line in a conductor	绝缘厚度 规定值 mm Specified value of insulation thickness	护套厚度规定值 mm Specified value of sheath thickness			平均外径 mm Average outside diameter		20℃时导体电阻最大值 Ω/km Max. conductor resistance at 20℃	
			单层 Single layer	双层 Two layer		下限 Lower limit	上限 Upper limit	铜芯 Copper core	镀锌铜芯 Tinned copper core
				内层 Inner layer	外层 Outer layer				
1×1	0.21	0.8	1.3	-	-	5.2	6.5	19.5	20.0
1×1.5	0.26	0.8	1.4	-	-	5.7	7.1	13.3	13.7
1×2.5	0.26	0.9	1.4	-	-	6.3	7.9	7.98	8.21
1×4	0.31	1.0	1.5	-	-	7.2	9.0	4.95	5.09
1×6	0.31	1.0	1.6	-	-	7.9	9.8	3.30	3.39
1×10	0.41	1.2	1.8	-	-	9.5	11.9	1.91	1.95
1×16	0.41	1.2	1.9	-	-	10.8	13.4	1.21	1.24
1×25	0.41	1.4	2.0	-	-	12.7	15.8	0.780	0.795
1×35	0.41	1.4	2.2	-	-	14.3	17.9	0.554	0.565
1×50	0.41	1.6	2.4	-	-	16.5	20.6	0.386	0.393
1×70	0.51	1.6	2.6	-	-	18.6	23.3	0.272	0.277
1×95	0.51	1.8	2.8	-	-	20.8	26.0	0.206	0.210
1×120	0.51	1.8	3.0	-	-	22.8	28.6	0.161	0.164
1×150	0.51	2.0	3.2	-	-	25.2	31.4	0.129	0.132
1×185	0.51	2.2	3.4	-	-	27.6	34.4	0.106	0.108
1×240	0.51	2.4	3.5	-	-	30.6	38.3	0.080 1	0.081 7
1×300	0.51	2.6	3.6	-	-	33.5	41.9	0.061 1	0.065 4
1×400	0.51	2.8	3.8	-	-	37.4	46.8	0.048 6	0.049 5
2×1	0.21	0.8	1.3	-	-	7.7	10.0	19.5	20.0
2×1.5	0.26	0.8	1.5	-	-	8.5	11.0	13.3	13.7
2×2.5	0.26	0.9	1.7	-	-	10.2	13.1	7.98	8.21
2×4	0.31	1.0	1.8	-	-	11.8	15.1	4.95	5.09
2×6	0.31	1.0	2.0	-	-	13.1	16.8	3.30	3.39
2×10	0.41	1.2	3.1	-	-	17.7	22.6	1.91	1.95
2×16	0.41	1.2	3.3	1.3	2.0	20.2	25.7	1.21	1.24
2×25	0.41	1.4	3.6	1.4	2.2	24.3	30.7	0.780	0.795
2×35	0.41	1.4	3.9	1.5	2.4	27.3	34.6	0.554	0.565
2×50	0.41	1.6	4.3	1.7	2.6	31.8	40.1	0.386	0.393
2×70	0.51	1.6	4.6	1.8	2.8	35.8	45.1	0.272	0.277
2×95	0.51	1.8	5.0	2.0	3.0	40.2	51.0	0.206	0.210
3×1	0.21	0.8	1.4	-	-	8.3	10.7	19.5	20.0
3×1.5	0.26	0.8	1.6	-	-	9.2	11.9	13.3	13.7
3×2.5	0.26	0.9	1.8	-	-	10.9	14.0	7.98	8.21
3×4	0.31	1.0	1.9	-	-	12.7	16.2	4.95	5.09

Table 8 YC重型450/750 V橡套软电缆 (续)

芯数×导体标称 截面/mm <sup>2</sup> Core No.×Conductor nominal cross-sectional area	导体中单线 最大直径 mm The maximum diameter of a single line in a conductor	绝缘厚度 规定值 mm Specified value of insulation thickness	护套厚度规定值 mm Specified value of sheath thickness			平均外径 mm Average outside diameter		20℃时导体电阻最大值 Ω/km Max. conductor resistance at 20℃		
			单层 Single layer	双层 Two layer		下限 Lower limit	上限 Upper limit	铜芯 Copper core	镀锌铜芯 Tinned copper core	
				内层 Inner layer	外层 Outer layer					
3×6	0.31	1.0	2.1	-	-	14.1	18.0	3.30	3.39	
3×10	0.41	1.2	3.3	-	-	19.1	24.2	1.94	1.95	
3×16	0.41	1.2	3.5	1.4	2.1	21.8	27.6	1.21	1.24	
3×25	0.41	1.4	3.8	1.5	2.3	26.1	33.0	0.780	0.795	
3×35	0.41	1.4	4.1	1.6	2.5	29.3	37.1	0.554	0.565	
3×50	0.41	1.6	4.5	1.8	2.7	34.1	42.9	0.386	0.393	
3×70	0.51	1.6	4.8	1.9	2.9	38.4	48.3	0.272	0.277	
3×95	0.51	1.8	5.3	2.1	3.2	43.3	54.0	0.206	0.210	
3×120	0.51	1.8	5.6	2.2	3.4	47.3	60.0	0.161	0.164	
3×150	0.51	2.0	6.0	2.4	3.6	52.0	66.0	0.129	0.132	
4×1	0.21	0.8	1.5	-	-	9.2	11.9	19.5	20.0	
4×1.5	0.26	0.8	1.7	-	-	10.2	13.1	13.3	13.7	
4×2.5	0.26	0.9	1.9	-	-	12.1	15.5	7.98	8.21	
4×4	0.31	1.0	2.0	-	-	14.0	17.9	4.95	5.09	
4×6	0.31	1.0	2.3	-	-	15.7	20.0	3.30	3.39	
4×10	0.41	1.2	3.4	-	-	20.9	26.5	1.91	1.95	
4×16	0.41	1.2	3.6	1.4	2.2	23.8	30.1	1.21	1.24	
4×25	0.41	1.4	4.1	1.6	2.5	28.9	36.6	0.780	0.795	
4×35	0.41	1.4	4.4	1.7	2.7	32.5	41.1	0.554	0.565	
4×50	0.46	1.6	4.8	1.9	2.9	37.7	47.5	0.386	0.393	
4×70	0.51	1.6	5.2	2.0	3.2	42.7	54.0	0.272	0.277	
4×95	0.51	1.8	5.9	2.3	3.6	48.4	61.0	0.206	0.210	
4×120	0.51	1.8	6.0	2.4	3.6	53.0	66.0	0.161	0.164	
4×150	0.51	2.0	6.5	2.6	3.9	58.0	73.0	0.129	0.132	
四芯 (三大 一小) Four core (three big and one small)	3×2.5+1×1.5	0.26/0.26	0.9/0.8	1.8	-	-	11.5	14.7	7.98	8.21
	3×4+1×2.5	0.31/0.26	1.0/0.9	2.0	-	-	13.6	17.3	4.95	5.09
	3×6+1×4	0.31/0.31	1.0/1.0	2.2	-	-	15.2	19.4	3.30	3.39
	3×10+1×6	0.41/0.31	1.2/1.0	3.3	-	-	19.9	25.3	1.91	1.95
	3×16+1×6	0.41/0.31	1.2/1.0	3.5	1.4	2.1	22.2	28.1	1.21	1.24
	3×25+1×10	0.41/0.41	1.4/1.2	3.9	1.6	2.3	26.9	34.0	0.780	0.795
	3×35+1×10	0.41/0.41	1.4/1.2	4.1	1.6	2.5	29.5	37.3	0.554	0.565
	3×50+1×16	0.41/0.41	1.6/1.2	4.5	1.8	2.7	34.2	43.2	0.386	0.393
	3×70+1×25	0.51/0.41	1.6/1.4	4.9	2.0	2.9	39.2	49.4	0.272	0.277
	3×95+1×35	0.51/0.41	1.8/1.4	5.3	2.1	3.2	44.0	55.4	0.206	0.210
	3×120+1×35	0.51/0.41	1.8/1.4	5.6	2.2	3.4	47.6	60.0	0.161	0.164
	3×125+1×50	0.51/0.41	2.0/1.6	6.1	2.4	3.7	53.0	67.0	0.129	0.132

Table 9 YC重型450/750 V橡套软电缆 (续)

芯数×导体标称 截面积mm <sup>2</sup> Core No.*Conductor nominal cross-sectional area	导体中单线 最大直径 mm The maximum diameter of a single line in a conductor	绝缘厚度 规定值 mm Specified value of insulation thickness	护套厚度规定值 mm Specified value of sheath thickness			平均外径 mm Average outside diameter		20℃时导体电阻最大值 Ω/km Max. conductor resistance at 20℃		
			单层 Single layer	双层 Two layer		下限 Lower limit	上限 Upper limit	铜芯 Copper core	镀锌铜芯 Tinned copper core	
				内层 Inner layer	外层 Outer layer					
5×1	0.26	0.8	1.6	-	-	10.2	13.1	19.5	20.0	
5×1.5	0.26	0.8	1.8	-	-	11.2	14.4	13.3	13.7	
5×2.5	0.26	0.9	2.0	-	-	13.3	17.0	7.989	8.21	
5×4	0.31	1.0	2.2	-	-	15.6	19.9	4.95	5.09	
5×6	0.31	1.0	2.5	-	-	17.5	22.2	3.30	3.39	
5×10	0.41	1.2	3.6	-	-	22.9	29.1	1.91	1.95	
5×16	0.41	1.2	3.9	1.5	2.4	26.4	33.3	1.21	1.24	
5×25	0.41	1.4	4.4	1.7	2.7	32.0	40.4	0.780	0.795	
5×35	0.41	1.4	4.6	1.8	2.8	35.7	45.1	0.554	0.565	
5×50	0.41	1.8	5.1	2.0	3.1	41.6	52.0	0.386	0.393	
5×70	0.51	1.6	5.5	2.2	3.3	47.1	59.0	0.272	0.277	
5×95	0.51	1.8	6.1	2.4	3.7	53.0	67.0	0.206	0.210	
5×120	0.51	1.8	6.6	2.6	4.0	59.0	74.0	0.161	0.164	
5×150	0.51	2.0	7.1	2.8	4.3	65.0	81.0	0.129	0.132	
五芯 <sup>Φ</sup> (三大 二小) Five core (three big and two small)	3×2.5+1×1.5	0.26/0.26	0.9/0.8	1.9	-	-	12.4	15.9	7.98	8.21
	3×4+2×2.5	0.31/0.26	1.0/0.9	2.2	-	-	14.8	18.9	4.95	5.09
	3×6+2×4	0.31/0.31	1.0/1.0	2.4	-	-	26.7	21.3	3.30	3.39
	3×10+2×6	0.41/0.31	1.2/1.0	3.4	-	-	21.2	26.9	1.91	1.95
	3×16+2×6	0.41/0.31	1.2/1.0	3.6	1.4	2.2	23.3	29.5	1.21	1.24
	3×25+2×10	0.41/0.41	1.4/1.2	4.0	1.6	2.4	28.2	35.6	0.780	0.795
	3×35+2×10	0.41/0.41	1.4/1.2	4.2	1.7	2.5	30.6	38.7	0.554	0.565
	3×50+2×16	0.41/0.41	1.6/1.2	4.6	1.8	2.8	35.5	44.7	0.386	0.393
	3×70+2×25	0.51/0.41	1.6/1.4	5.0	2.0	3.0	40.9	52.0	0.272	0.277
	3×95+2×35	0.51/0.41	1.8/1.4	5.5	2.2	3.3	46.2	58.0	0.206	0.210
	3×120+2×35	0.51/0.41	1.8/1.4	5.8	2.3	3.5	49.4	62.0	0.161	0.164
	3×150+2×50	0.51/0.41	2.0/1.6	6.3	2.5	3.8	55.0	70.0	0.129	0.132
五芯 <sup>Φ</sup> (四大 一小) Five core (four big and one small)	4×2.5+1×1.5	0.26/0.26	0.8/0.9	2.0	-	-	12.9	16.5	7.98	8.21
	4×4+1×2.5	0.31/0.26	1.0/0.9	2.2	-	-	15.2	19.4	4.95	5.09
	4×6+1×4	0.31/0.31	1.0/1.0	2.4	-	-	17.0	21.6	3.30	3.39
	4×10+1×6	0.41/0.31	1.2/1.0	3.5	-	-	22.1	28.0	1.91	1.95
	4×16+1×6	0.41/0.31	1.2/1.0	3.7	1.5	2.2	24.7	31.3	1.21	1.24
	4×25+1×10	0.41/0.41	1.4/1.2	4.2	1.7	2.5	30.1	38.0	0.780	0.795
	4×35+1×10	0.41/0.41	1.4/1.2	4.4	1.8	2.6	33.2	41.9	0.554	0.565
4×50+1×16	0.41/0.41	1.6/1.2	4.9	2.0	2.9	38.7	48.7	0.386	0.393	

**Table 9 YC 重型450/750 V 橡套软电缆 (续)**

芯数×导体标称 截面mm <sup>2</sup> Core No.*Conductor nominal cross-sectional area	导体中单线 最大直径 mm The maximum diameter of a single line in a conductor	绝缘厚度 规定值 mm Specified value of insulation thickness	护套厚度规定值 mm Specified value of sheath thickness			平均外径 mm Average outside diameter		20℃时导体电阻最大值 Ω/km Max. conductor resistance at 20℃		
			单层 Single layer	双层 Two layer 内层 Inner layer 外层 Outer layer		下限 Lower limit	上限 Upper limit	铜芯 Copper core	镀锌铜芯 Tinned copper core	
五芯 <sup>Ⓐ</sup> (四大一小) Five core (four big and one small)	4×70+1×25	0.51/0.41	1.6/1.4	5.3	2.1	3.2	44.1	56.0	0.272	0.277
	4×95+1×35	0.51/0.41	1.8/1.4	5.8	2.3	3.5	49.7	63.0	0.206	0.210
	4×120+1×35	0.51/0.41	1.8/1.4	6.2	2.5	3.7	54.0	68.0	0.161	0.164
	4×150+1×50	0.51/0.41	2.0/1.6	6.7	2.7	4.0	60.0	75.0	0.129	0.132

注：四芯(三大一小)、五芯(三大二小)和五芯(四大一小)结构中  
小芯的直流电阻值与同型号相应截面主芯芯相同。

\* 四芯(三大一小)、五芯(三大二小)和五芯(四大一小)结构中导体  
电阻为主芯芯导体电阻。

In the 4 core (3 large and one small), 5 core (3 big 1 small) and 5 core (4  
large 1 small) structure, the DC resistance of the small core is the same as  
that of the main core of the same section area type.

<sup>Ⓐ</sup> In the 4 core (3 big and 1 small), 5 core (3 big and 2 small) and 5 core (4  
big and 1 small), the Conductor resistance is the master core conductor  
resistance.

**Table 10 YCW 重型450/750 V 橡套软电缆**

芯数×导体标称 截面mm <sup>2</sup> Core No.*Conductor nominal cross-sectional area	导体中单线 最大直径 mm The maximum diameter of a single line in a conductor	绝缘厚度 规定值 mm Specified value of insulation thickness	护套厚度规定值 mm Specified value of sheath thickness			平均外径 mm Average outside diameter		20℃时导体电阻最大值 Ω/km Max. conductor resistance at 20℃		
			单层 Single layer	双层 Two layer 内层 Inner layer 外层 Outer layer		下限 Lower limit	上限 Upper limit	铜芯 Copper core	镀锌铜芯 Tinned copper core	
2×35	0.41	1.4	3.9	1.5	2.4	27.3	34.6	0.554	0.565	
2×50	0.41	1.6	4.3	1.7	2.6	31.8	40.1	0.386	0.393	
2×70	0.51	1.6	4.6	1.8	2.8	35.8	45.1	0.272	0.277	
2×95	0.51	1.8	5.0	2.0	3.0	40.2	51.1	0.206	0.210	
3×120	0.51	1.8	5.6	2.2	3.4	47.3	60.0	0.161	0.164	
3×150	0.51	2.0	6.0	2.4	3.6	52.0	66.0	0.129	0.132	
五芯 <sup>Ⓐ</sup> (四大一小) Five core (four big and one small)	3×2.5+1×1.5	0.26/0.26	0.9/0.8	1.8	-	-	11.5	14.7	7.98	8.21
	3×4+1×2.5	0.31/0.26	1.0/0.9	2.0	-	-	13.6	17.3	4.95	5.09
	3×6+1×4	0.31/0.31	1.0/1.0	2.2	-	-	15.2	19.4	3.30	3.39
	3×10+1×6	0.41/0.31	1.2/1.0	3.3	-	-	19.9	25.3	1.91	1.95
	3×16+1×6	0.41/0.31	1.2/1.0	3.5	1.4	2.1	22.2	28.1	1.21	1.24
	3×25+1×10	0.41/0.41	1.4/1.2	3.9	1.6	2.3	26.9	34.0	0.780	0.795
	3×35+1×10	0.41/0.41	1.4/1.2	4.1	1.6	2.5	29.5	37.3	0.554	0.565
	3×50+1×16	0.41/0.41	1.6/1.2	4.5	1.8	2.7	34.2	43.2	0.386	0.393
	3×70+1×25	0.51/0.41	1.6/1.4	4.9	2.0	2.9	39.2	49.4	0.272	0.277
	3×95+1×35	0.51/0.41	1.7/1.4	5.3	2.1	3.2	44.0	55.4	0.206	0.210
	3×120+1×35	0.51/0.41	1.8/1.4	5.6	2.2	3.4	47.6	60.0	0.161	0.164
3×150+1×50	0.51/0.41	2.0/1.6	6.1	2.4	3.7	53.0	67.0	0.129	0.132	
5×35	0.41	1.4	4.6	1.8	2.8	35.7	45.1	0.554	0.565	
5×50	0.41	1.6	5.1	2.0	3.1	41.6	52.0	0.386	0.393	
5×70	0.51	1.6	5.5	2.2	3.3	47.1	59.0	0.272	0.277	

Table 10 YCW重型450/750 V橡套软电缆 (续)

芯数×导体标称 截面积mm <sup>2</sup> Core No.*Conductor nominal cross-sectional area	导体中单线 最大直径 mm The maximum diameter of a single line in a conductor	绝缘厚度 规定值 mm Specified value of insulation thickness	护套厚度规定值 mm Specified value of sheath thickness			平均外径 mm Average outside diameter		20℃时导体电阻最大值 Ω/km Max. conductor resistance at 20℃		
			单层 Single layer	双层 Two layer		下限 Lower limit	上限 Upper limit	铜芯 Copper core	镀锡铜芯 Tinned copper core	
				内层 Inner layer	外层 Outer layer					
5×95	0.51	1.8	6.1	2.4	3.7	53.0	67.0	0.206	0.210	
5×120	0.51	1.8	6.6	2.6	4.0	59.0	74.0	0.161	0.164	
5×150	0.51	2.0	7.1	2.8	4.3	65.0	81.0	0.129	0.132	
五芯 <sup>a</sup> (三大 二小) Five Core (three big and two small)	3×2.5+1×1.5	0.26/0.26	0.9/0.8	1.9	-	-	12.4	15.9	7.98	8.21
	3×4+2×2.5	0.31/0.26	1.0/0.9	2.2	-	-	14.8	18.9	4.95	5.09
	3×6+2×4	0.31/0.31	1.0/1.0	2.4	-	-	16.7	21.3	3.30	3.39
	3×10+2×6	0.41/0.31	1.2/1.0	3.4	-	-	21.2	26.9	1.91	1.95
	3×16+2×6	0.41/0.31	1.2/1.0	3.6	1.4	2.2	23.3	29.5	1.21	1.24
	3×25+2×10	0.41/0.41	1.4/1.2	4.0	1.6	2.4	28.2	35.6	0.780	0.795
	3×35+2×10	0.41/0.41	1.4/1.2	4.2	1.8	2.5	30.6	38.7	0.554	0.565
	3×50+2×16	0.41/0.41	1.6/1.2	4.6	1.8	2.8	35.5	44.7	0.386	0.393
	3×70+2×25	0.51/0.41	1.6/1.4	5.0	2.0	3.0	40.9	52.0	0.272	0.277
	3×95+2×35	0.51/0.41	1.7/1.4	5.5	2.2	3.3	46.2	58.0	0.206	0.210
3×120+2×35	0.51/0.41	1.8/1.4	5.8	2.3	3.5	49.4	62.0	0.161	0.164	
3×150+2×50	0.51/0.41	2.0/1.6	6.3	2.5	3.8	55.0	70.0	0.129	0.132	
五芯 <sup>a</sup> (四大 一小) Five Core (four big and one small)	4×2.5+1×1.5	0.26/0.26	0.9/0.8	2.0	-	-	12.9	16.5	7.98	8.21
	4×4+1×2.5	0.31/0.26	1.0/0.9	2.2	-	-	15.2	19.4	4.95	5.09
	4×6+1×4	0.31/0.31	1.0/1.0	2.4	-	-	17.0	21.6	3.30	3.39
	4×10+1×6	0.41/0.31	1.2/1.0	3.5	-	-	22.1	28.0	1.91	1.95
	4×16+1×6	0.41/0.31	1.2/1.0	3.7	1.5	2.2	24.7	31.3	1.21	1.24
	4×25+1×10	0.41/0.41	1.4/1.2	4.2	1.7	2.5	30.1	38.0	0.780	0.795
	4×35+1×10	0.41/0.41	1.4/1.2	4.4	1.8	2.6	33.2	41.9	0.554	0.565
	4×50+1×16	0.41/0.41	1.6/1.2	4.9	2.0	2.9	38.7	48.7	0.386	0.393
	4×70+1×25	0.51/0.41	1.6/1.4	5.3	2.1	3.2	44.1	56.0	0.272	0.277
	4×95+1×35	0.51/0.41	1.8/1.4	5.8	2.3	3.5	49.7	63.0	0.206	0.210
4×120+1×35	0.51/0.41	1.8/1.4	6.2	2.5	3.7	54.0	68.0	0.161	0.164	
4×150+1×50	0.51/0.41	2.0/1.6	6.7	2.7	4.0	60.0	75.0	0.129	0.132	

注：四芯（三大一小）、五芯（三大二小）和五芯（四大一小）结构中单芯的直流电阻值与同型号相应截面积主线芯相同。

\* 四芯（三大一小）、五芯（三大二小）和五芯（四大一小）结构中导体电阻为主线芯导体电阻。

In the 4 core (3 large and one small), 5 core (3 big 1 small) and 5 core (4 large 1 small) structure, the DC resistance of the small core is the same as that of the main core of the same section area type.

\* In the 4 core (3 big and 1 small) and 5 core (3 big and 2 small) and 5 core (4 big and 1 small), the Conductor resistance is the master core conductor resistance.

## 六、交货要求

- 1、根据双方协议允许任何长度的电缆交货，长度误差为±0.5%；
- 2、用户对产品有阻燃特性要求，在合同中需另补充协议。

## Delivery Length

1. According to the agreement between the two parties, any length of cable can be delivered with a length error of ±0.5%.
2. The additional agreement should be added according to customer's requirements on flame retardant performance.

# 电焊机电缆

## Cable for electric welding machine

本产品适用于交流额定电压450/750V及以下的家用电器、电动工具和各种移动电气设备。

It is used for household electrical appliance, electrical tools and various mobile electrical equipments with AC rated voltage up to and including 450/750V.

### 一、生产执行标准

GB/T5013.6-2008/IEC60245-6:1994.

### Executive standard

GB/T5013.6-2008/IEC60245-6:1994.

### 二、使用特性

由于这种类型的电缆专用于焊接，故额定电压不作规定。

### Operational performance

Due to this type of cable is used for welding, the rated voltage is not specified.

### 三、型号及名称及主要用途

### Type, Description and Main Application

60245 IEC 81(YH)	橡胶电焊机电缆 Rubber sheathed electric welding machine cable	主要用作电焊机焊接线用 Mainly used as welding wire for welding machine
60245 IEC 82(YHF)	氯丁或其他相当的合成弹性体橡胶电焊机电缆 Chloroprene(Or other equivalent synthetic elastomers) rubber sheathed	

### 四、规格范围

### Specification Range

型号 Type	额定电压V Rated voltage	芯数 Core number	标称截面mm <sup>2</sup> Nominal cross section area
60245 IEC 81(YH) 60245 IEC 82(YHF)	/	1	16-95

### 五、规格尺寸及技术参数如下表

### Specification, Size and Technical Parameter in Table 1

Table 1 60245 IEC 81(YH) 60245 IEC 82(YHF)

标称截面mm <sup>2</sup> Nominal cross section area	导体结构 Conductor structure 根/单线直径 Pieces/diameter of single piece	20℃导体电阻≤Ω/km Conductor resistance at 20℃		电缆外径参考 mm Cable OD for reference
		不镀锡 Non tinned	镀锡 Tinned	
16	509 / 0.20	1.16	1.19	8.8~11.0
25	796 / 0.20	0.758	0.780	10.1~12.7
35	1115 / 0.20	0.536	0.552	11.4~14.2
50	1592 / 0.20	0.379	0.390	13.2~16.5
70	2229 / 0.20	0.268	0.276	15.3~19.2
95	3025 / 0.20	0.198	0.204	17.1~21.4

### 六、交货要求

1. 根据双方协议允许任何长度的电缆交货，长度误差为±0.5%；
2. 用户对产品有阻燃特性要求，在合同中需另补充协议。

### Delivery Length

1. Delivery length of cable depends on both agreements with length error allowance of ±0.5%.
2. The additional agreement should be added according to customer's requirements on flame retardant performance.



## 补偿电缆 Compensating Cable



热电偶用补偿导线，补偿电缆  
Compensating Wire & Cable for Thermocouple

# 热电偶用补偿导线、补偿电缆

## Compensational Wire & Cable for Thermocouple

补偿导线与补偿电缆是在一定温度范围内(包括常温)具有与所匹配的热电偶的热电势值相当的一对或多对带有绝缘层的导线或电缆,用它们连接热电偶与测量装置,以补偿它们与热电偶连接处的温度变化所产生的误差,补偿导线与补偿电缆分为延长型和补偿型两种。

The compensation cable/wire is one or more pairs of wires/cables with insulated layer. It has the same value of thermopower with the matching thermocouple in a certain temperature range (including ambient temperature), which are used to connect the thermocouple and the measuring device. In order to compensate for the error caused by the temperature changes, Compensation wire and compensation cable is divided into two types: extended type and compensation type.

### 一、生产执行标准

GB/T4989-2013及JB/T7495-2014.

### Executive Standard

GB/T4989-2013 & JB/T7495-2014.

### 二、使用条件

#### 1. 工作温度

耐热用:最高200°C;

一般用:最高-20~70°C和-20~100°C两种;

#### 2. 最低环境温度

氟塑料绝缘和护套线:固定敷设-60°C,非固定敷设-20°C;

聚氯乙烯绝缘和护套线:固定敷设-40°C,非固定敷设-15°C;

#### 3. 允许弯曲半径:

- 有铜带屏蔽的补偿电缆,应不小于电缆外径的16倍;
- 其它结构的补偿电缆,应不小于电缆外径的10倍。

### Operational performance

#### 1. Working Temperature

Max. 200°C for heat resistant cable

Max. -20~70°C & -20~100°C for common cable

#### 2. Min Environment Temperature

Wire & cable with fluoroplastic insulation and sheath: -60°C for fixed installation, -20°C for non-fixed installation

Wire & cable with PVC insulation and sheath: -40°C for fixed installation, -15°C for non-fixed installation

#### 3. Bending radius

It should be not less than 16 times that of cable outer diameter for compensational cable with copper tape shielding.

It should be not less than 10 times that of cable outer diameter for compensational cable with other structure.

### 三、型号名称

#### 1. 补偿导线

### Type and Description

#### Compensational Wire

型号 Type	名称 Description
KX-GS-VV	聚氯乙烯绝缘和护套一般用精密级K分度热电偶用补偿导线 Precise grade compensational wire for K Type Thermocouple with PVC insulation and sheath for general purpose
KX-GS-VPV	聚氯乙烯绝缘和护套铜丝编织屏蔽一般用精密级K分度热电偶用屏蔽补偿导线 Precise grade compensational wire for K Type Thermocouple with PVC insulation and sheath, copper wire braided shielding for general purpose
KX-HS-FF	氟塑料绝缘和护套耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with Fluoroplastic insulation and sheath for heat resistant purpose
KX-HS-FP1F	氟塑料绝缘和护套镀锡铜丝编织屏蔽耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with Fluoroplastic insulation and sheath, tinned copper wire braided shielding for heat resistant purpose
KX-HS-FB	聚四氟乙烯绝缘和护套耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with F4 insulation and glass wire braided sheath for heat resistant purpose
KX-HS-FBP1	聚四氟乙烯绝缘和护套耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with F4 wrapped insulation glass wire braiding, tinned copper wire braided shielding and glass wire braided outer sheath for heat resistant purpose
KX-HS-FP1V10S	氟塑料绝缘镀锡铜丝编织屏蔽耐热105°C聚氯乙烯护套耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with Fluoroplastic insulation, tinned copper wire braided shielding, 105°C heat resistant and PVC sheath for heat resistant

注:普通级补偿导线型号表示方法,在精密级补偿导线型号基础上去掉字母“S”即可(下同)。

Note: Type-naming method of common grade compensational wire: "S" should be omitted on the basis of precise grade compensational wire type.

## 2、补偿电缆

## Compensating Cable

型号 Type	名称 Description
KX-GS-VV	聚氯乙烯绝缘对绞聚氯乙烯护套一般用精密级K分度热电偶用补偿电缆 Precise grade compensational cable for K Type Thermocouple with PVC insulation and twinning PVC sheath for general purpose
KX-GS-VPV	聚氯乙烯绝缘对绞铜丝编织分屏蔽聚氯乙烯护套一般用精密级K分度热电偶用补偿电缆 Precise grade compensational cable for K Type Thermocouple with PVC insulation, twinning copper wire braided individual shielding, PVC sheath for general purpose
KX-GS-VPVP	聚氯乙烯绝缘对绞铜丝编织分屏蔽和总屏蔽聚氯乙烯护套一般用精密级K分度热电偶用补偿电缆 Precise grade compensational cable for K Type Thermocouple with PVC insulation, twinning copper wire braided individual & general shielding, PVC sheath for general purpose
KX-GS-VVP	聚氯乙烯绝缘对绞铜丝编织总屏蔽聚氯乙烯护套一般用精密级K分度热电偶用补偿电缆 Precise grade compensational cable for K Type Thermocouple with PVC insulation, twinning copper wire braided general shielding, PVC sheath for general purpose
KX-HS-FF	氟塑料绝缘对绞氟塑料护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation and twinning Fluoroplastic sheath
KX-HS-FFP	氟塑料绝缘对绞镀锡铜丝编织分屏蔽氟塑料护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided individual shielding and Fluoroplastic sheath
KX-HS-FF1P1	氟塑料绝缘对绞镀锡铜丝编织分屏蔽和总屏蔽氟塑料护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided individual & general shielding and Fluoroplastic sheath
KX-HS-FFP1	氟塑料绝缘对绞镀锡铜丝编织总屏蔽氟塑料护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided general shielding and Fluoroplastic sheath
KX-HS-FV105	氟塑料绝缘对绞耐热105℃聚氯乙烯护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning 105°C heat resistant PVC sheath
KX-HS-FF1V105	氟塑料绝缘对绞镀锡铜丝编织分屏蔽耐热105℃聚氯乙烯护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided individual shielding 105°C heat resistant PVC sheath
KX-HS-FF1V105P1	氟塑料绝缘对绞镀锡铜丝编织分屏蔽和总屏蔽耐热105℃聚氯乙烯护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided individual and general shielding 105°C heat resistant PVC sheath
KX-HS-FV105P1	氟塑料绝缘对绞镀锡铜丝编织总屏蔽耐热105℃聚氯乙烯护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided general shielding 105°C heat resistant PVC sheath

- 注：1、其它型号补偿导线如：KX、JC、SC、EX、NC、TX等，只需改写型号的第一项，如：EX-G-VV、TX-H-FVP等；  
2、导体为多股软芯时，应在原型号后加“R”表示，如：TX-G-VVPR；  
3、还可根据需要提供氟乙烷(V)绝缘、交联聚乙烯(Y)绝缘补偿电缆；  
4、补偿电缆屏蔽层也可采用金属带绕包形式，如：复合铝带(P3)、复合铜带(P2)；  
5、需阻燃型补偿电缆，应在原型号前加“ZR-”；  
6、需铠装型补偿电缆，应在原型号后加“-22”表示钢带铠装；加“-32”表示钢丝铠装；  
7、需本安型补偿电缆，应在原型号前加“ia-”表示。

- Note: 1.Compensation wire types, such as KC JX SC EX NC TX etc., only need to rewrite the first item of the model, like EX-G-VV and TX-H-FVP etc.  
2.Suffix "R" is added to the original type for indication of cable with soft multi-strand core, eg. TX-G-VVPR  
3.We also produce compensational cable with PE (Y) insulation or XLPE (YJ) insulation if needed.  
4.Shielding layer material of compensational cable includes metallic tape wrapping such as compound aluminum tape (P3) and compound copper tape (P2).  
5.Prefix "ZR-" is added to the original type for indication of flame retardant type compensational cable.  
6.Suffix "-22" is added to the original type for indication of compensational cable with steel tape armor, "-32" for that with steel wire armor.  
7.Prefix "ia-" is added to the original type for indication of intrinsic safety type compensational cable.

#### 四、规格范围

#### Specification Range

名称 Name	线芯对数 Pair No. of core	标称截面mm <sup>2</sup> Nominal cross section area	线芯结构 Core structure	
			A	R
补偿导线 Compensational wire	1	0.5	1/0.80	7/0.30
		1.0	1/1.13	7/0.43
补偿电缆 Compensational cable	1-19	1.5	1/1.37	7/0.52
		2.5	1/1.76	19/0.41

#### 五、主要技术要求

#### Main Technical Requirement

产品型号 Type	补偿导线及电缆线芯 Compensational wire & cable core		补偿导线绝缘层着色 Insulation color of compensational wire		配用热电偶分度号 Thermocouple graduation
	正极 Positive pole	负极 Negative pole	正极 Positive pole	负极 Negative pole	
SC or RC	铜 Cu	铜镍0.6 Cu-Ni	红 Red	绿 Green	S (铂铑10-铂) 或 R (铂铑13-铂) S (PtRh10-PT) or R (PtRh13-PT)
KCA	铁 Fe	铜镍22 Cu-Ni	红 Red	蓝 Blue	K (镍铬-镍硅) K (NiCr-NiSi)
KCB	铜 Cu	铜镍40 Cu-Ni	红 Red	蓝 Blue	
KX	镍铬10 Ni-Cr 10	镍硅3 Ni-Si	红 Red	黑 Black	E (镍铬-镍硅) E (NiCr-NiSi)
EX	镍铬10 Ni-Cr 10	铜镍45 Cu-Ni	红 Red	棕 Brown	
JX	铁 Fe	铜镍45 Cu-Ni	红 Red	紫 Violet	J (铁-铜镍) J (Fe-CuNi)
TX	铜 Cu	铜镍45 Cu-Ni	红 Red	白 White	T (铜-铜镍) T (Cu-CuNi)
NC	铁 Fe	铜镍18 Cu-Ni	红 Red	灰 Grey	N (镍铬硅-镍硅) N (NiCrSi-NiSi)
NX	镍铬14 Ni-Cr 14 Si	镍硅4 Ni-Si	红 Red	灰 Grey	

#### 六、补偿导线与补偿电缆使用分类、等级及护套着色

#### Category, Class mark and Sheath Color of Compensational Cable and Wire

使用分类 Category	标志代号 Mark code	允差等级及标志 Error allowance grade&mark		护套着色 Sheath color		
		普通级 Common grade	精密级 Precise grade	普通级 Common grade	精密级 Precise grade	本安型 Intrinsic safety
一般用 General	G	省略 Omitted	S	黑色 Black	灰 Grey	蓝 Blue
耐热用 Heat resistance	H			黑色 Black	黄色 Yellow	蓝 Blue

注：在旧标准GB4989-85中，普通级用B表示，精密级用A表示。

Note: In earlier version of GB4989-85 standard, B stands for common.

#### 七、补偿导线及补偿电缆热电特性及允差表

#### A stands for precise grade and ErrorAllowance of Compensational Cable and Wire

型号 Type	使用分类 Category	导线温度范围℃ Tem range of cable&wire	热电势及允差μV Pyro EMF			热电偶测温端 温度℃ Measuring end tem. of thermocouple	20℃时往复电阻值≤Ω/m Reciprocating resistance at 20℃			
			热电势 Pyro EMF	精密级 Precise grade	普通级 Common grade		0.5mm <sup>2</sup>	1.0mm <sup>2</sup>	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>
SC&RC	G	0-100	646	/	±60(±5.0℃)	1000	0.10	0.05	0.03	0.02
	H	0-200	1441							
KCA	G	0-100	4096	±44(±1.1℃)	±88(±2.2℃)	1000	1.40	0.70	0.47	0.28
	H	0-200	8138			900				
KCB	G	0-100	4096	±44(±1.1℃)	±88(±2.2℃)	900	1.04	0.52	0.35	0.21
	H	-20-100	4096			900				
KX	G	-20-100	4096	±44(±1.1℃)	±88(±2.2℃)	900	2.20	1.10	0.73	0.44
	H	-25-200	8138			900				

EX	G	-20~100	6319	±81(±1.1℃)	±138(±1.7℃)	500	2.50	1.25	0.83	0.50
	H	-25~200	13421			500				
JX	G	-20~100	6319	±62(±1.1℃)	±123(±2.0℃)	500	1.30	0.65	0.43	0.26
	H	-25~200	13421			500				
TX	G	-20~100	6319	±30(±0.5℃)	±60(±1.0℃)	300	1.04	0.52	0.35	0.21
	H	-25~200	13421			300				
NC	G	0~100	6319	±48(±0.8℃)	±90(±1.5℃)	900	1.50	0.75	0.50	0.30
	H	0~200	13421			900				
NX	G	-20~100	6319	±43(±1.1℃)	±86(±2.2℃)	900	2.86	1.43	0.95	0.57
	H	-25~200	13421			900				

## 八、其它参数指标

### Other Parameter Indices

项目 Item	单位 Unit	参数指标 Parameter Indices	
		PVC绝缘PVC insulation	PE, XLPE, F46&F绝缘PE, XLPE, F46&F insulation
绝缘电阻 Insulated resistance	MΩ.km	25	100
电压试验 Voltage test	V/1min	500	
阻燃性能 Flame resistant performance	符合GB/T19666-2005阻燃标准中A、B、C类规定。 Meet the requirement of flame retardance of category A, B, C stipulated in GB/T19666-2005 standard.		

## 九、规格尺寸

### Specification and Size

#### 1、补偿导线；

#### Compensational Wire

芯数×标称截面mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor	最大外径 mm Max OD				计算重量 kg/km Calculated weight			
		VV	VPV	FF	FP1F	VV	VPV	FF	FP1F
2×0.5	A	3.7×6.4	4.7×7.4	2.8×4.6	3.2×5.2	30	50	27	45
	R	3.9×6.6	4.9×7.6	2.8×4.8	3.4×5.4	35	55	30	50
2×1.0	A	5.0×7.7	6.0×8.7	3.0×5.3	3.6×5.9	56	82	39	64
	R	5.1×8.0	6.1×9.0	3.1×5.6	3.7×6.2	60	87	45	69
2×1.5	A	5.2×8.3	6.2×9.3	3.2×5.8	3.8×6.4	68	93	54	77
	R	5.5×8.7	6.5×9.7	3.4×6.2	4.0×6.8	75	102	60	87
2×2.5	A	5.7×9.3	6.7×10.3	3.6×6.7	4.2×7.3	94	121	77	103
	R	5.9×9.8	6.9×10.8	4.0×7.3	4.6×7.9	101	133	84	114

#### 2、补偿电缆；

#### Compensational Cable

芯数×标称截面mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor	最大外径 mm Max OD						计算重量 kg/km Calculated weight					
		VV	VPV	FV	FP1V	FF	FP1F	VV	VPV	FV	FP1V	FF	FP1F
1×2×0.5	A	6.9	7.4	6.7	7.2	5.0	5.6	58	70	49	68	36	53
	R	7.3	7.7	7.0	7.4	5.2	5.8	59	73	52	73	38	56
1×2×1.0	A	8.7	9.1	7.4	7.8	5.8	6.3	87	107	64	86	50	70
	R	8.9	9.4	7.6	8.3	6.1	6.8	94	113	70	95	54	80
1×2×1.5	A	9.1	9.8	7.9	8.4	6.4	6.9	104	125	78	103	62	89
	R	9.6	10.5	8.1	8.8	6.6	7.4	109	131	83	110	72	95
1×2×2.5	A	10.0	10.7	8.8	9.2	7.4	7.8	129	153	106	133	92	117
	R	10.7	11.3	9.2	10.1	7.8	8.7	143	179	113	144	99	126

2×2×0.5	A	10.3	11.4	9.4	11.1	7.9	9.7	107	177	93	175	79	156
	R	10.6	12.0	9.5	11.4	8.1	10.0	115	186	98	183	84	164
2×2×1.0	A	13.0	15.0	10.5	12.2	9.0	11.0	175	282	128	220	112	207
	R	13.3	15.4	10.9	12.9	9.5	11.7	177	293	135	236	120	221
2×2×1.5	A	13.6	16.1	11.3	13.1	9.9	11.9	197	314	153	257	137	240
	R	15.1	16.8	11.9	14.4	10.7	13.0	226	338	174	294	158	277
2×2×2.5	A	15.8	17.5	12.8	15.2	11.6	13.6	277	388	211	346	198	325
	R	16.8	18.6	13.6	16.6	12.4	15.1	302	449	239	383	238	360
3×2×0.5	A	10.6	12.1	9.8	11.7	8.4	10.5	122	212	105	206	91	193
	R	11.2	12.7	10.0	12.1	8.6	10.9	134	220	110	210	96	204
3×2×1.0	A	14.4	15.8	11.0	13.0	9.6	11.8	217	336	156	272	139	254
	R	14.7	16.3	11.6	13.6	10.3	12.4	232	356	170	291	155	273
3×2×1.5	A	15.2	17.1	12.0	14.5	10.8	13.0	264	387	195	337	181	317
	R	16.0	17.8	12.5	15.3	11.3	13.8	278	411	214	362	198	344
3×2×2.5	A	16.7	18.6	13.5	16.1	12.3	14.5	338	485	273	434	256	412
	R	17.9	19.8	15.2	17.6	13.6	16.1	369	553	314	466	295	446
4×2×0.5	A	11.3	12.9	10.5	13.5	9.0	12.3	151	252	133	254	113	236
	R	12.0	14.5	10.7	14.7	9.2	13.2	160	283	139	265	172	248
4×2×1.0	A	15.4	16.9	11.8	15.6	10.6	14.1	262	410	187	342	185	322
	R	16.2	17.4	12.4	16.6	11.2	15.1	271	418	201	368	218	346
4×2×1.5	A	16.3	18.3	12.9	16.8	11.7	15.3	309	462	235	405	250	383
	R	18.3	19.1	13.5	17.8	12.3	16.3	330	487	270	431	327	408
4×2×2.5	A	18.0	20.6	14.5	18.8	13.6	17.3	404	612	348	521	355	497
	R	19.3	21.9	16.3	21.5	14.7	19.7	440	691	377	566	446	540
5×2×0.5	A	12.7	15.0	11.7	14.4	10.5	12.5	183	321	158	322	214	302
	R	13.4	15.8	11.9	14.9	10.7	13.6	196	343	172	337	251	319
5×2×1.0	A	17.3	18.9	13.1	16.1	11.9	14.5	318	485	230	410	288	392
	R	18.0	19.4	14.5	16.9	13.0	15.4	334	504	269	448	311	423
5×2×1.5	A	18.3	21.0	15.1	17.2	13.5	15.6	383	591	300	492	411	468
	R	19.3	22.0	15.8	18.2	14.3	16.6	405	624	332	524	453	499
5×2×2.5	A	20.9	23.0	17.1	19.1	15.5	17.6	531	750	434	640	411	612
	R	22.3	24.5	18.3	21.8	16.7	20.0	574	848	473	728	453	696
6×2×0.5	A	15.0	16.8	13.2	16.3	12.0	14.7	234	384	195	385	178	361
	R	15.8	17.7	13.5	16.8	12.3	15.3	250	410	209	406	192	383
6×2×1.0	A	19.7	22.1	15.5	18.0	14.0	16.5	382	609	304	503	283	473
	R	20.9	22.8	16.5	19.1	15.0	17.6	433	643	326	539	303	507
6×2×1.5	A	21.5	23.9	17.1	19.5	15.5	17.9	492	703	363	592	352	562
	R	22.7	25.1	18.0	21.2	16.5	19.5	521	756	405	659	381	634
6×2×2.5	A	23.9	26.6	19.4	22.4	17.8	20.7	641	870	527	798	502	767
	R	25.5	28.4	21.6	24.8	19.8	23.0	697	1048	603	870	573	836
7×2×0.5	A	15.2	17.1	13.4	16.5	12.2	15.0	248	413	207	411	187	388
	R	16.1	17.9	14.4	17.0	12.9	15.5	260	435	235	436	215	408
7×2×1.0	A	20.7	22.4	15.8	18.2	14.3	16.7	429	650	318	531	296	505
	R	21.2	23.1	16.8	19.4	15.3	17.9	445	675	341	572	318	545
7×2×1.5	A	21.9	24.3	17.3	19.7	15.7	18.2	514	750	398	631	375	606
	R	23.0	25.4	18.3	21.5	16.7	19.8	537	796	426	704	402	672
7×2×2.5	A	24.2	27.1	19.7	22.7	18.2	21.0	676	971	562	857	535	825
	R	26.0	28.8	21.9	25.2	20.1	23.4	727	1113	637	932	607	897
8×2×0.5	A	16.5	18.5	15.2	17.8	13.6	16.3	279	464	245	400	228	435
	R	17.5	19.5	15.6	18.5	14.1	16.9	294	485	263	483	242	457
8×2×1.0	A	22.4	24.4	17.2	19.8	15.6	18.3	480	730	357	595	333	588
	R	23.1	25.1	18.3	21.8	16.7	20.0	490	759	380	671	360	640
8×2×1.5	A	23.8	26.8	18.8	22.1	17.3	20.4	574	840	450	741	426	710
	R	25.1	28.2	20.6	23.4	18.8	21.7	604	922	508	792	480	760
8×2×2.5	A	26.8	29.5	22.1	24.8	20.4	23.0	786	1089	663	968	634	934
	R	28.8	31.5	23.9	27.8	22.4	25.4	844	1250	718	1074	686	1046
9×2×0.5	A	17.3	19.5	16.0	18.7	14.4	17.2	300	509	273	503	252	478
	R	18.4	21.1	16.4	19.5	14.9	17.9	321	559	288	530	266	505
9×2×1.0	A	23.7	25.7	18.0	21.5	16.5	19.7	527	802	391	680	369	651
	R	24.3	26.8	19.3	22.9	17.7	21.1	542	859	423	735	398	703
9×2×1.5	A	25.1	28.3	19.8	23.2	18.2	21.5	633	959	497	816	472	783
	R	27.0	29.7	21.7	24.6	19.9	22.9	686	1010	560	866	530	837
9×2×2.5	A	28.3	31.1	23.3	26.5	21.6	24.3	866	1201	734	1091	703	1064
	R	30.5	33.2	25.2	29.4	23.4	26.8	932	1423	795	1186	761	1157
10×2×0.5	A	17.5	19.5	16.1	18.8	14.5	17.3	324	541	293	540	271	514
	R	18.5	21.2	16.5	19.6	15.0	17.9	346	599	310	570	287	543
10×2×1.0	A	23.8	25.8	18.1	21.6	16.6	19.8	566	862	423	735	400	701
	R	24.5	26.9	19.4	23.0	17.8	21.1	584	922	458	791	433	758

芯数×标称截面 mm <sup>2</sup> Core No.*nominal cross section area	导体种类 Conductor	最大外径 mm Max OD						计算重量 kg/km Calculated weight					
		VV	VPV	FV	FP1V	FF	FP1F	VV	VPV	FV	FP1V	FF	FP1F
10×2×1.5	A	25.2	28.4	19.8	23.3	18.2	21.6	684	1027	538	878	514	844
	R	27.1	29.8	21.8	24.7	20.0	22.9	742	1085	606	934	575	903
10×2×2.5	A	28.5	31.2	23.4	26.6	21.7	24.4	941	1296	797	1180	767	1152
	R	30.6	33.3	25.3	29.5	23.5	26.8	1009	1536	863	1279	827	1250
12×2×0.5	A	18.5	21.5	17.1	20.7	15.5	18.9	372	641	336	636	313	617
	R	19.7	22.6	17.6	21.5	16.1	19.7	396	680	354	681	332	650
12×2×1.0	A	25.2	27.5	19.4	23.0	17.8	21.2	647	1014	490	843	465	811
	R	26.5	28.7	21.3	24.4	19.6	22.7	697	1054	557	908	526	874
12×2×1.5	A	27.3	30.1	21.9	24.9	20.1	23.1	812	1191	655	1014	625	980
	R	28.8	31.8	23.2	26.8	21.5	25.1	856	1254	700	1119	668	1091
12×2×2.5	A	30.4	33.3	25.0	28.4	23.2	26.2	1086	1541	929	1367	896	1339
	R	32.7	35.6	26.5	31.5	25.9	28.9	1167	1767	1030	1404	1011	1455
14×2×0.5	A	20.6	22.9	18.3	22.1	-	-	420	736	380	732	-	-
	R	21.9	24.2	18.9	22.9	-	-	473	770	401	769	-	-
14×2×1.0	A	27.7	30.1	21.5	24.6	-	-	763	1161	588	960	-	-
	R	28.6	30.9	22.9	26.7	-	-	792	1199	634	1061	-	-
14×2×1.5	A	29.4	32.6	23.5	27.2	-	-	925	1379	749	1183	-	-
	R	31.0	34.2	25.0	28.8	-	-	975	1459	801	1266	-	-
14×2×2.5	A	32.8	35.9	27.2	30.5	-	-	1241	1762	1090	1564	-	-
	R	35.2	38.8	28.7	33.8	-	-	1335	2063	1190	1734	-	-
16×2×0.5	A	21.5	23.9	19.0	23.0	-	-	501	820	427	815	-	-
	R	22.8	25.2	19.7	23.9	-	-	528	860	453	861	-	-
16×2×1.0	A	28.9	31.4	22.3	25.6	-	-	855	1300	663	1075	-	-
	R	29.8	32.2	23.9	27.8	-	-	893	1380	715	1186	-	-
16×2×1.5	A	30.7	34.0	24.5	28.3	-	-	1050	1546	845	1328	-	-
	R	32.5	35.8	26.5	30.0	-	-	1100	1648	927	1418	-	-
16×2×2.5	A	34.2	38.0	28.5	31.8	-	-	1408	1982	1237	1796	-	-
	R	36.7	40.6	30.9	35.3	-	-	1516	2326	1341	1956	-	-
19×2×0.5	A	23.2	25.7	21.2	24.9	-	-	571	936	517	934	-	-
	R	24.6	27.6	22.0	25.7	-	-	598	1005	546	985	-	-
19×2×1.0	A	31.4	34.0	24.2	28.0	-	-	978	1528	758	1263	-	-
	R	32.9	34.9	25.9	30.0	-	-	1008	1577	818	1361	-	-
19×2×1.5	A	33.3	36.9	27.0	30.6	-	-	1193	1773	998	1528	-	-
	R	35.8	39.3	28.7	32.5	-	-	1254	1920	1065	1665	-	-
19×2×2.5	A	37.2	41.2	30.9	34.4	-	-	1615	2317	1420	2072	-	-
	R	40.5	44.1	33.6	38.7	-	-	1763	2677	1543	2284	-	-

订货须知：

1. 订货时必须注明产品型号、规格、导体种类、数量等；
2. 根据双方协议允许任何长度交货；长度计量误差不得超过±0.5%。

Note for ordering

1. When ordering, be sure to specify the product model, specification, type of conductor, quantity, etc.
2. Allow any length of delivery according to the agreement between the parties. The length measurement error is not more than ±0.5%.

本安补偿导线/电缆除具有上述性能指标外，还具备以下本安性能指标：

Intrinsically safe compensation wire / cable also have the following indicators

项目 Item	单位 Unit	指标 Index
工作电容 Operating capacitance	PF/m	≤180
电容不平衡 Unbalance capacitance	P/m	≤1
分布电感 Distributed inductance	uH/m	≤0.6
静电感应电压（静电压20kV） Static induction colltage(Static voltage 20kV)	V	≤1
电磁干扰感应电压（干扰电磁400mA/m） Induction voltage of EMI(EMI 400mA/m)	uV	≤5





## 船用电缆 Matine Cable



聚氯乙烯绝缘和护套船用电力电缆  
Ship Power Cable with PVC Insulation & Sheath

聚氯乙烯绝缘和护套船用控制电缆  
Ship Control Cable with PVC Insulation & Sheath

船用射频电缆  
Shipboard RF Cable

# 聚氯乙烯绝缘和护套船用电力电缆

## Power Cable with PVC Insulation and Sheath for Ship

本产品适用于各种河海船舶及海上平台等水上建筑物输电能。

It is used to transmit power for ships, offshore platform and other building over water.

### 一、生产执行标准

GB/T9331-2008.

Executive standard

GB/T9331-2008.

### 二、使用条件

1. 额定电压为0.6/1kV；
2. 电缆长期允许工作温度为70°C。

Operational performance

1. Rated voltage is 0.6/1kV.
2. Long term working temperature allowed by cable is 70°C.

### 三、型号名称

Type and Description

型号 Type	名称 Description
ZA-CVV	聚氯乙烯绝缘及护套船用电力电缆, ZA型 Power cable with PVC insulation and sheath for ship, ZA type
ZA-CVV80	聚氯乙烯绝缘聚氯乙烯护套内套裸铜丝编织船用电力电缆, ZA型 Power cable with PVC insulation and inner sheath and bare copper wire braiding for ship, ZA type
ZA-CVV90	聚氯乙烯绝缘聚氯乙烯护套内套铜丝编织铠装船用电力电缆, ZA型 Power cable with PVC insulation and inner sheath, steel wire braiding and armoring for ship, ZA type
ZA-CVV92	聚氯乙烯绝缘聚氯乙烯护套内套铜丝编织铠装聚氯乙烯护套船用电力电缆, ZA型 Power cable with PVC insulation, PVC inner sheath, PVC outer sheath, steel wire braiding and armoring for ship, ZA type
ZA-CYJV	交联聚乙烯绝缘及护套船用电力电缆, ZA型 Power cable with XPLE insulation and sheath for ship, ZA type
ZA-CYJV80	交联聚乙烯绝缘聚氯乙烯护套内套裸铜丝编织船用电力电缆, ZA型 Power cable with XPLE insulation and PVC inner sheath, bare copper wire braiding for ship, ZA type
ZA-CYJV90	交联聚乙烯绝缘聚氯乙烯护套内套铜丝编织铠装船用电力电缆, ZA型 Power cable with XPLE insulation and PVC inner sheath, steel wire braiding and armoring for ship, ZA type
ZA-CYJV92	交联聚乙烯绝缘聚氯乙烯护套内套铜丝编织铠装聚氯乙烯护套船用电力电缆, ZA型 Power cable with XPLE insulation, PVC inner sheath, PVC outer sheath, steel wire braiding and armoring for ship, ZA type

### 四、规格范围

Specification Range

型号 Type	芯数 Core number	截面mm <sup>2</sup> Cross section area
ZA-CVV ZA-CYJV	1	1~300
ZA-CVV80 ZA-CYJV80	2	1~120
ZA-CVV90 ZA-CYJV90	3	1~185
ZA-CVV92 ZA-CYJV92	4~37	1~2.5

芯数推荐: 1, 2, 3, 4, 5, 7, 10, 12, 14, 16, 19, 24, 27, 30, 33和37芯。

Number of cores recommended: 1,2,3,4,5,7,10,12,14,16,19,24,27,30,33 or37.

## 五、使用特性

## Performance for Usage

电缆结构特性 Structure character of cable	电缆外径D Outer diameter of cable	最小弯曲半径 Min bending radius
金属编织型 Metallic braiding type	任何值 Any value	6D
非铠装型 Unarmored type	D<25	4D
	D≥25	6D

## 六、新标准型号与老标准型号对照

## New standard model and old standard model comparison table

新标准型号 New type	老标准型号 Old type
ZA-CVV	CVV/DA
ZA-CVV80	CVV80/DA
ZA-CVV90	CVV90/DA
ZA-CVV92	CVV92/DA
ZA-CYJV	CYJV/DA
ZA-CYJV80	CYJV80/DA
ZA-CYJV90	CYJV90/DA
ZA-CYJV92	CYJV92/DA

## 六、技术要求及规格尺寸

电缆应能经受交流电压3.5kV或直流电压8.4kV，5min  
耐压试验；  
电缆规格尺寸符合GB9331-2008中相应数据规定。

## Technical Requirement and Specification & Size

Cable should bear voltage test of AC 3.5 kV or DC 8.4kV for 5min.  
Specification of cable shall meet the requirement of relevant data stipulated in GB9331-2008 standard.

## 七、交货长度

允许按双方协议长度交货。

## Delivery length

According to the agreement between both parties.

# 聚氯乙烯绝缘和护套船用控制电缆

## Control Cable with PVC Insulation and Sheath for Ship

本产品适用于交流额定电压250V及以下的各种船舶及海上石油平台等水上建筑物，用于对干扰不敏感的电路。

It is used for the circuit insensitive to interference of AC rated voltage 250V or lower for ships, offshore platform and other building over water.

### 一、生产执行标准

GB9332-2008(IEC60092-376).

### Executive standard

GB9332-2008(IEC60092-376)

### 二、使用条件

1、电缆的长期允许工作温度，聚氯乙烯绝缘电缆为70℃；交联聚乙烯绝缘电缆为90℃；

2、敷设时电缆的最小弯曲半径；金属屏蔽铠装型（电缆外径D为任何值）为6D；非铠装型（电缆外径 $D \leq 25$ ）为4D；（电缆外径 $D > 25$ ）为6D。

注：D代表电缆外径

### Operational performance

1. Long term working temperature allowed by cable 70℃ is for cable with PVC insulation, 90℃ is for cable with XLPE insulation.

2. Min. bending radius of cable for installation is 6 times that of cable OD for cable with metallic shielding and armoring(D is for any value.) and 4 times that of cable OD for cable without armoring( $D \leq 25$ ). Min. bending radius of cable for installation is 6 times that of cable OD( $D > 25$ ).

Note: D means outer diameter of cable

### 三、型号说明

### Type Introduction



### 三、型号、名称及敷设要求

### Type, Description and Installation Requirements

型号 Type	名称 Description	敷设要求 Installation requirements
CKVV/DA	聚氯乙烯绝缘聚氯乙烯护套船用控制电缆 Control cable with PVC insulation and sheath for ship	固定敷设特性代号： D-符合单根垂直燃烧试验 characteristic code It conforms to the single vertical combustion test
CKVV80/DA	聚氯乙烯绝缘和护套裸铜丝编织铠装船用控制电缆 Control cable with PVC insulation and sheath, bare copper wire braiding and armoring for ship	
CKVV82/DA	聚氯乙烯绝缘铜丝编织铠装聚氯乙烯护套船用控制电缆 Control cable with PVC insulation and sheath, copper wire braiding and armoring for ship	
CKVV90/DA	聚氯乙烯绝缘聚氯乙烯内套裸铜丝编织铠装船用控制电缆 Control cable with PVC insulation and inner sheath, bare steel wire braiding and armoring for ship	
CKVV92/DA	聚氯乙烯绝缘聚氯乙烯内套铜丝编织铠装聚氯乙烯护套船用控制电缆 Control cable with PVC insulation and inner sheath, PVC outer sheath, steel wire braiding and armoring for ship	

CKJV/DA	交联聚乙烯绝缘聚氯乙烯护套船用控制电缆 Control cable with XLPE insulation and PVC sheath for ship	固定敷设特性代号： D-符合单根垂直燃烧试验 Fixed laying characteristic code It conforms to the single vertical combustion test
CKJV80/DA	交联聚乙烯绝缘和护套裸铜丝编织铠装船用控制电缆 Control cable with XLPE insulation and sheath, bare copper wire braiding and armoring for ship	
CKJV82/DA	交联聚乙烯绝缘铜丝编织铠装聚氯乙烯护套船用控制电缆 Control cable with XLPE insulation and PVC sheath, copper wire braiding and armoring for ship	
CKJV90/DA	交联聚乙烯绝缘聚氯乙烯护套内套裸铜丝编织铠装船用控制电缆 Control cable with XLPE insulation and PVC inner sheath, bare steel wire braiding and armoring for ship	
CKJV92/DA	交联聚乙烯绝缘聚氯乙烯护套内套铜丝编织铠装聚氯乙烯护套船用控制电缆 Control cable with XLPE insulation and PVC inner sheath, PVC outer sheath, steel wire braiding and armoring for ship	

#### 四、规格范围

#### Specification Range

型号 Type	芯数 Core number	截面mm <sup>2</sup> (根数/单丝直径) Cross section area (pieces/diameters of single piece)
所有型号 All types	2, 4, 7, 10, 14, 19, 24, 30, 37	0.75 (7/0.37) 、 1.0 (7/0.43) 、 1.5 (7/0.52) 、 2.5 (7/0.68)

#### 五、技术要求

- 1、电缆应经受交流电压1500V或直流电压3600V，5min的电压试验；
- 2、电缆具有符合GB/T19666-2005单根垂直燃烧试验性能要求；
- 3、CKV系列电缆在20℃时绝缘电阻常数不小于36.7MΩ.km；CKJ系列电缆在20℃时绝缘电阻常数不小于3670MΩ.km。

#### Technical Requirements

- 1.Cable should bear voltage test of AC 1500V or DC 3600V for 5min.
- 2.Vertical burning test performance for single piece shall meet the requirement of GB/T19666-2005 standard.
- 3.Insulated resistance constant is not less than 36.7MΩ.km at 20°C for CKV series cable and more than 3670MΩ.km at 20°C for CKJ series cable.

#### 六、交货要求

按双方协议规定，长度计量误差为±0.5%。

#### Delivery length

According to the agreement between both parties with length error of ±0.5%.

# 船用射频电缆

## Radio-frequency Cable for Ship

本产品适用于各种河海船舶及海上石油平台等各种水上建筑物，连接高频信号和对地不对称的高频信号设备；如用作无线电台和雷达设备的连接。

It is used for the connection between high frequency signal equipments and high frequency signal equipments to the ground on various ships, offshore platform and other buildings above water, eg. It is used for the connection with wireless and radar equipments.

### 一、生产执行标准

GB/T9333-2009.

Executive standard

GB/T9333-2009.

### 二、型号名称

Type, Description

型号 Type	名称 Description
CSYV	铜导体聚乙烯绝缘聚氯乙烯护套船用同轴射频电缆 Coaxial radio-frequency cable for ship with Cu conductor, PE insulation, PVC sheath
CSYV90	铜导体聚乙烯绝缘聚氯乙烯护套内套裸铜丝编织铠装船用同轴射频电缆 Coaxial radio-frequency cable for ship with Cu conductor, PE insulation, PVC inner sheath, bare steel wire braided armoring
CSFF	镀银铜导体聚四氟乙烯绝缘聚四氟乙烯护套玻璃丝编织保护层船用同轴射频电缆 Coaxial radio-frequency cable for ship with silver-plated Cu conductor, Teflon insulation, Teflon sheath, glass wire braided protecting layer
CSYV80	铜导体聚乙烯绝缘聚氯乙烯护套内套裸铜丝编织铠装船用同轴射频电缆 Coaxial radio-frequency cable for ship with Cu conductor, PE insulation, PVC inner sheath, CU wire braided armoring

### 三、型号编制及字母代号含义

船用射频电缆系列代号	CS
铜导体或铜包钢导体	T (省略)
聚乙烯绝缘	Y
聚四氟乙烯绝缘或护套	F
聚氯乙烯护套	V
钢丝编织	9
铜丝编织	8
无护套	0

注：聚四氟乙烯+玻璃丝编织浸渍外套也用代号表示。

### Type compiling and Letter meaning

Serial number of RF cable for ship	CS
Cu conductor	T(omitted)
PE insulation	Y
Teflon insulation or sheath	F
PVC sheath	V
Steel wire braiding	9
Copper wire braiding	8
No sheath	0

Note: "F" can also be used to stand for Teflon plus glass wire impregnated sheath.

### 四、使用特性

### Operational performance

Table 2 CSYV, CSYV90, CSYV80

规格 Specification	电容 pF/m Capacitance	速比 Speed ratio	最大交流电压 (kV) 峰值 Max. A.C. voltage	最大脉冲电压 (kV) 峰值 Max. pulse voltage	弯曲半径 mm Bending radius		最低弯曲温度 Min bending temperature
					室内 Indoor	室外 Outdoor	
50-7-2	100	0.66	6.5	13	50	10D	-40℃
50-7-6	100	0.66	6.5	13			
50-12-1	100	0.66	9.5	19			

D: 电缆外径 (下同)

D means outer diameter of cable(the following is the same)

Table 3 CSFF

规格 Specification	电容 pF/m Capacitance	速比 Speed ratio	最大交流电压 (kV) 峰值 Max. A.C. voltage	最大脉冲电压 (kV) 峰值 Max. pulse voltage	弯曲半径 mm Bending radius		最低弯曲温度 Min bending temperature
					室内 Indoor	室外 Outdoor	
50-7-8	94	0.70	6.5	13	50	100	-50℃

Table 4 CSYV, CSYV90, CSYV80

规格 Specification	电容 pF/m Capacitance	速比 Speed ratio	最大交流电压 (kV) 峰值 Max. A.C. voltage	最大脉冲电压 (kV) 峰值 Max. pulse voltage	弯曲半径 mm Bending radius		最低弯曲温度 Min bending temperature
					室内 Indoor	室外 Outdoor	
75-4-1	67	0.66	2.6	5.2	5D	10D	-40℃
75-4-2	67	0.66	2.6	5.2			
75-7-2	67	0.66	5.0	10			
75-7-3	67	0.66	5.0	10			

## 五、结构尺寸

## Structure Dimension

Table 5 CSYV, CSYV90, CSYV80 type

规格 Specification	内导体 Inner conductor		绝缘外径 mm Insulation OD	外导体材料 Material of outer conductor		护套外径 mm Sheath OD	铠装外径(如有) 最大 mm Max.OD of armoring
	材料 Material	结构 Structure		内层 Inner layer	外层 Outer layer		
50-7-2	铜线 Copper wire	7/0.75	7.25±0.25	/	铜线 Copper wire	10.3±0.3	12.5
50-7-6		7/0.75	7.25±0.15	镀银铜线 Silver-plated copper wire		11.0±0.3	13.0
50-12-1		7/1.15	11.5±0.3	/		15.0±0.4	17.0

Table 7 CSFF, CSYV80 type

规格 Specification	内导体 Inner conductor		绝缘外径 mm Insulation OD	外导体材料 Material of outer conductor		护套外径 mm Sheath OD
	材料 Material	结构 Structure		内层 Inner layer	外层 Outer layer	
50-7-8	镀银铜线 Silver-plated copper wire	7/0.82	7.25±0.15	镀银铜线 Silver-plated copper wire	镀银铜线 Silver-plated copper wire	10.8±0.5

Table 8 CSYV, CSYV90 Type

规格 Specification	内导体 Inner conductor		绝缘外径 mm Insulation OD	外导体材料 Material of outer conductor		护套外径 mm Sheath OD	铠装外径(如有) 最大 mm Max.OD of armoring
	材料 Material	结构 Structure		内层 Inner layer	外层 Outer layer		
75-4-1	铜线 Copper wire	7/0.21	3.70±0.13	/	铜线 Copper wire	6.0±0.2	8.0
75-4-2		7/0.21	3.70±0.10	铜线 Copper wire		6.7±0.2	9.0
75-4-3		7/0.40	7.25±0.25	/		10.3±0.3	12.5
75-4-4		7/0.40	7.25±0.15	铜线 Copper wire		11.0±0.3	13.0

## 六、交货要求

- 1、实芯聚乙烯绝缘电缆不小于100米，短段不小于10米长；
- 2、实芯聚四氟乙烯绝缘电缆不小于45米，短段不小于3米；
- 3、短段电缆交货数量不超过交货长度的15%；
- 4、根据双方协议，可以在任何长度的电缆交货；长度计量误差应不超过±0.5%。

## Delivery Requirements

1. Cable with solid conductor and PE insulation shall be not less than 100meter. And shorter cable shall be not less than 10 meter.
2. Cable with solid conductor and Teflon insulation shall be not less than 45 meter. And shorter cable shall be no less than 3 meter.
3. Delivery quantity of shorter cables shall not exceed 15% of delivery length.
4. Delivery length of cable depends on both agreements with length error allowance of ±0.5%.





## 煤矿用电缆 Mining cables



煤矿用额定电压8.7/10kV及以下交联绝缘阻燃电力电缆

Flame Retardant Power Cable with Cross linked Insulation, Rated Voltage of 8.7/10kV or Lower for Coal Mine.

煤矿用额定电压3.6/6kV及以下聚氯乙烯绝缘阻燃电力电缆

Flame Retardant Power Cable with PVC Insulation ,Rated voltage of 3.6/6kV or lower for Coal Mine.

煤矿用额定电压0.66/1.14kV及以下移动类阻燃软电缆

Mobile Flame Retardant Flexible Cable with rated voltage of 0.66/1.14kV or Lower for Coal Mine.

# 煤矿用额定电压8.7/10kV及以下交联绝缘阻燃电力电缆

Flame Retardant Power Cable with Cross linked Insulation,  
Rated Voltage of 8.7/10kV or Lower for Coal Mine

## 一、生产执行标准

MT818.13-2009《煤矿用电缆额定电压8.7/10kV及以下煤矿用交联聚乙烯绝缘电力电缆》。

## Production standards

MT818.13-2009 Rated voltage 8.7/10kV or lower for coal mine cable and XLPE insulated power cable for coal mine .

## 二、工作条件

- 1、电缆导体的允许最高工作温度为90℃；
- 2、短路时（最长持续时间不超过5秒）电缆导体的最高温度不超过250℃；
- 3、电缆敷设温度不低于0℃。

## Operational performance

- 1.Max. working temperature of cable conductor is 90℃.
- 2.Max. temperature of cable conductor is no more than 250℃ during Short Circuit. (The maximum duration is no more than 5 seconds.)
- 3.Cable installation temperature is no less than 0℃.

## 三、型号名称

## Cable type&name

型号 Type	名称 Name
MYJV	煤矿用铜芯交联聚乙烯绝缘聚氯乙烯护套电力电缆 Copper core XLPE insulation PVC sheath power cable for coal mine
MYJV22	煤矿用铜芯交联聚乙烯绝缘钢带铠装聚氯乙烯护套电力电缆 Copper core XLPE insulation steel tape armoring PVC sheath power cable for coal mine
MYJV32	煤矿用铜芯交联聚乙烯绝缘细钢丝铠装聚氯乙烯护套电力电缆 Copper core XLPE insulation thin steel wire armoring PVC sheath power cable for coal mine
MYJV42	煤矿用铜芯交联聚乙烯绝缘粗钢丝铠装聚氯乙烯护套电力电缆 Copper core XLPE insulation thick steel wire armoring PVC sheath power cable for coal mine

## 四、生产范围

## Production range

型号 Type	芯数 Core Number	额定电压 kV Rated Voltage			
		0.6/1	1.8/3	6/10	6/10, 8.7/10
		标称截面 mm <sup>2</sup> Nominal Cross-section area			
MYJV	3	1.5-300	10-300	50-400	25-300
MYJV22	3	2.5-300	10-300	25-400	25-300
MYJV32	3	16-300	16-300	25-400	25-300
MYJV42	3	50-300	50-300	25-400	25-300
MYJV MYJV22	3+1	4-300 4-300	10-300 10-300	/	/
MYJV MYJV22	4	4-185 4-185	4-185 4-185	/	/

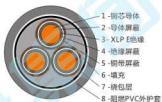
## 五、产品结构示意图

## Product structure diagram



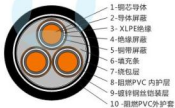
MYJV22

1. Copper conductor
2. Conductor shield
3. XLPE insulation
4. Insulation shielding
5. Copper tape shield
6. Filling strip
7. Taped covering
9. Galvanized steel strip armor layer



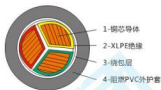
MYJV

2. Conductor shield
4. Insulation shielding
6. Filling strip
8. Flame retardant PVC inner sheath
10. Flame retardant PVC outer sheath



MYJV42

1. Copper conductor
2. Conductor shield
3. XLPE insulation
4. Insulation shielding
5. Copper tape shield
6. Filling strip
7. Taped covering
8. Flame retardant PVC inner sheath
9. Galvanized steel strip armor layer
10. Flame retardant PVC outer sheath



MYJV-0.6/1kV

1. Copper conductor
2. XLPE insulation
3. Wrapping layer
4. Flame retardant PVC outer sheath

## 六、产品特点

1. 具有优异的阻燃性能，满足煤矿用电缆特殊要求；
2. 成品电缆的阻燃性能符合MT386各项试验要求。

## Product characteristic

1. The cable has good feature of flame resistance. It can meet special requirement of Coal mine used cable.
2. Flame retardant performance of finished cable shall meet all kinds of test requirement stipulated in MT386 standard.

## 七、电缆外径尺寸

Outer diameter size of cable

## MYJV-0.6/1kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×1.5	0.7	1.8	10.0
3×2.5	0.7	1.8	10.8
3×4	0.7	1.8	11.8
3×6	0.7	1.8	12.8
3×10	0.7	1.8	15.6
3×16	0.7	1.8	18.0
3×25	0.9	1.8	20.6
3×35	0.9	1.8	20.2
3×50	1.0	1.8	23.4
3×70	1.1	1.8	26.4
3×95	1.1	1.9	30.0
3×120	1.2	2.0	33.2
3×150	1.4	2.1	37.5
3×185	1.6	2.3	42.0
3×240	1.7	2.4	46.4
3×300	1.8	2.6	51.0

## MYJV22-0.6/1kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×2.5	0.7	1.8	13.6
3×4	0.7	1.8	14.5
3×6	0.7	1.8	15.6
3×10	0.7	1.8	18.5
3×16	0.7	1.8	20.8
3×25	0.9	1.8	23.5
3×35	0.9	1.8	23.0
3×50	1.0	1.8	26.2
3×70	1.1	1.9	30.5
3×95	1.1	2.0	34.5
3×120	1.2	2.2	38.0
3×150	1.4	2.3	42.2
3×185	1.6	2.5	47.0
3×240	1.7	2.6	51.6
3×300	1.8	2.8	56.4

## MYJV22-0.6/1kV(3+1芯)

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×4+1×2.5	0.7	1.8	15.3
3×6+1×4	0.7	1.8	16.5
3×10+1×6	0.7	1.8	19.6
3×16+1×10	0.7	1.8	22.2
3×25+1×16	0.7	1.8	25.4
3×35+1×16	0.9	1.8	27.6
3×50+1×25	1.0	1.8	30.5
3×70+1×35	1.1	1.9	34.5
3×95+1×50	1.1	2.0	39.2
3×120+1×70	1.2	2.2	43.0
3×150+1×70	1.4	2.3	45.8
3×185+1×95	1.6	2.5	51.5
3×240+1×120	1.7	2.6	57.1
3×300+1×150	1.8	2.8	62.9

## MYJV-0.6/1kV(4芯)

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
4×4	0.7	1.8	12.8
4×6	0.7	1.8	14.0
4×10	0.7	1.8	17.0
4×16	0.7	1.8	19.6
4×25	0.9	1.8	22.8
4×35	0.9	1.8	25.2
4×50	1.0	1.8	27.0
4×70	1.1	1.8	31.0
4×95	1.1	1.9	34.6
4×120	1.2	2.0	39.0
4×150	1.4	2.1	42.4
4×185	1.6	2.3	48.0

## MYJV22-0.6/1kV(4芯)

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
4×4	0.7	1.8	15.8
4×6	0.7	1.8	17.0
4×10	0.7	1.8	20.0
4×16	0.7	1.8	22.6
4×25	0.9	1.8	25.8
4×35	0.9	1.8	28.7
4×50	1.0	1.8	30.5
4×70	1.1	1.9	34.5
4×95	1.1	2.0	38.6
4×120	1.2	2.2	43.0
4×150	1.4	2.3	46.4
4×185	1.6	2.5	52.5

## MYJV32-0.6/1kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×16	0.7	1.8	23.2
3×25	0.9	1.8	26.0
3×35	0.9	1.8	25.5
3×50	1.0	1.8	28.5
3×70	1.1	2.0	32.0
3×95	1.1	2.1	36.8
3×120	1.2	2.2	40.0
3×150	1.4	2.4	45.5
3×185	1.6	2.6	50.5
3×240	1.7	2.7	55.0
3×300	1.8	2.9	60.0

## MYJV42-0.6/1KV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×50	1.0	2.1	36.0
3×70	1.1	2.2	39.5
3×95	1.1	2.3	42.5
3×120	1.2	2.4	46.0
3×150	1.4	2.6	50.5
3×185	1.6	2.7	54.5
3×240	1.7	2.9	59.5
3×300	1.8	3.0	63.5

**MYJV-1.8/3kV**

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×10	2.0	1.8	23.2
3×16	2.0	1.8	25.5
3×25	2.0	1.8	27.5
3×35	2.0	1.9	29.5
3×50	2.0	2.0	34.0
3×70	2.0	2.1	38.0
3×95	2.0	2.3	42.2
3×120	2.0	2.5	47.5
3×150	2.0	2.6	50.0
3×185	2.0	2.7	53.2
3×240	2.0	2.9	60.0
3×300	2.0	3.0	64.0

**MYJV22-1.8/3kV**

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×10	2.0	1.8	24.0
3×16	2.0	1.8	26.2
3×25	2.0	1.8	28.5
3×35	2.0	1.9	31.5
3×50	2.0	2.1	36.5
3×70	2.0	2.3	40.5
3×95	2.0	2.4	44.5
3×120	2.0	2.5	49.5
3×150	2.0	2.6	52.0
3×185	2.0	2.7	55.2
3×240	2.0	3.0	62.0
3×300	2.0	3.1	66.5

**MYJV32-1.8/3kV**

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×10	2.0	1.8	26.5
3×16	2.0	1.8	28.8
3×25	2.0	1.9	31.0
3×35	2.0	2.0	34.0
3×50	2.0	2.1	38.5
3×70	2.0	2.3	42.8
3×95	2.0	2.4	46.8
3×120	2.0	2.6	52.5
3×150	2.0	2.7	54.8
3×185	2.0	2.8	58.8
3×240	2.0	3.1	66.8
3×300	2.0	3.2	71.0

**MYJV42-1.8/3kV**

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×50	2.0	2.3	42.8
3×70	2.0	2.4	46.8
3×95	2.0	2.5	50.8
3×120	2.0	2.7	56.2
3×150	2.0	2.8	58.5
3×185	2.0	2.9	62.0
3×240	2.0	3.1	68.0
3×300	2.0	3.3	73.0

MYJV-1.8/3kV(3+1芯)

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×10+1×6	2.0	1.8	22.9
3×16+1×10	2.0	1.8	25.5
3×25+1×16	2.0	1.8	28.6
3×35+1×16	2.0	1.9	31.4
3×50+1×25	2.0	1.9	29.8
3×70+1×35	2.0	2.0	33.5
3×95+1×50	2.0	2.2	37.0
3×120+1×70	2.0	2.3	40.9
3×150+1×95	2.0	2.3	43.3
3×185+1×95	2.0	2.4	45.9
3×240+1×120	2.0	2.6	52.0
3×300+1×150	2.0	2.8	57.5

MYJV22-1.8/3kV(3+1芯)

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×10+1×6	2.0	1.8	24.8
3×16+1×10	2.0	1.8	27.4
3×25+1×16	2.0	1.9	30.6
3×35+1×16	2.0	2.0	32.6
3×50+1×25	2.0	1.8	31.8
3×70+1×35	2.0	2.1	35.5
3×95+1×50	2.0	2.2	39.0
3×120+1×70	2.0	2.2	43.0
3×150+1×95	2.0	2.4	45.5
3×185+1×95	2.0	2.5	48.2
3×240+1×120	2.0	2.7	55.0
3×300+1×150	2.0	2.9	60.0

MYJV-1.8/3kV(4芯)

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
4×4	2.0	1.8	18.8
4×6	2.0	1.8	20.0
4×10	2.0	1.8	22.9
4×16	2.0	1.8	25.6
4×25	2.0	1.8	28.7
4×35	2.0	2.0	31.8
4×50	2.0	2.0	32.4
4×70	2.0	2.1	36.0
4×95	2.0	2.3	40.4
4×120	2.0	2.4	43.8
4×150	2.0	2.5	47.5
4×185	2.0	2.6	51.4

## MYJV22-1.8/3kV(4芯)

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
4×4	2.0	1.8	22.0
4×6	2.0	1.8	23.2
4×10	2.0	1.8	26.5
4×16	2.0	1.8	28.9
4×25	2.0	1.9	32.6
4×35	2.0	2.0	36.3
4×50	2.0	2.1	34.6
4×70	2.0	2.2	38.2
4×95	2.0	2.3	42.4
4×120	2.0	2.4	45.8
4×150	2.0	2.6	50.7
4×185	2.0	2.7	54.6

## MYJV-3.6/6kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	2.5	2.1	36.0
3×35	2.5	2.1	38.0
3×50	2.5	2.2	41.0
3×70	2.5	2.4	45.0
3×95	2.5	2.5	49.0
3×120	2.5	2.6	52.0
3×150	2.5	2.7	56.0
3×185	2.5	2.8	60.0
3×240	2.6	3.0	65.0
3×300	2.8	3.2	71.0

## MYJV22-3.6/6kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	2.5	2.2	41.0
3×35	2.5	2.2	43.0
3×50	2.5	2.3	47.0
3×70	2.5	2.5	51.0
3×95	2.5	2.6	54.0
3×120	2.5	2.7	58.0
3×150	2.5	2.8	62.0
3×185	2.5	2.9	65.0
3×240	2.6	3.1	71.0
3×300	2.8	3.3	77.0

## MYJV32-3.6/6kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	2.5	2.2	43.0
3×35	2.5	2.3	46.0
3×50	2.5	2.4	50.0
3×70	2.5	2.6	54.0
3×95	2.5	2.7	58.0
3×120	2.5	2.8	62.0
3×150	2.5	2.9	66.5
3×185	2.5	3.0	71.0
3×240	2.5	3.2	76.0
3×300	2.5	3.4	82.0



## MYJV42-3.6/6kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	2.5	2.4	49.5
3×35	2.5	2.5	52.0
3×50	2.5	2.6	55.0
3×70	2.5	2.7	58.0
3×95	2.5	2.8	62.0
3×120	2.5	2.9	65.5
3×150	2.5	3.0	69.5
3×185	2.5	3.0	73.0
3×240	2.6	3.3	78.5
3×300	2.8	3.5	84.0

## MYJV-6/6kV、6/10kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	3.4	2.2	40.5
3×35	3.4	2.3	43.0
3×50	3.4	2.4	46.0
3×70	3.4	2.5	50.0
3×95	3.4	2.6	53.0
3×120	3.4	2.7	56.5
3×150	3.4	2.8	60.5
3×185	3.4	2.9	64.0
3×240	3.4	3.1	69.5
3×300	3.4	3.3	74.5

## MYJV22-6/6kV、6/10kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	3.4	2.3	45.0
3×35	3.4	2.4	48.0
3×50	3.4	2.5	51.0
3×70	3.4	2.6	55.0
3×95	3.4	2.7	59.0
3×120	3.4	2.8	62.0
3×150	3.4	2.9	66.0
3×185	3.4	3.0	70.0
3×240	3.4	3.2	75.0
3×300	3.4	3.4	80.0

## MYJV32-6/6kV、6/10kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	3.4	2.4	48.5
3×35	3.4	2.5	51.5
3×50	3.4	2.6	54.5
3×70	3.4	2.7	58.0
3×95	3.4	2.9	63.5
3×120	3.4	3.0	67.0
3×150	3.4	3.1	71.0
3×185	3.4	3.2	74.0
3×240	3.4	3.4	80.0
3×300	3.4	3.5	85.0

## MYJV42-6/6kV、6/10kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	3.4	2.5	53.0
3×35	3.4	2.6	56.0
3×50	3.4	2.7	58.0
3×70	3.4	2.8	62.5
3×95	3.4	3.0	66.5
3×120	3.4	3.1	70.0
3×150	3.4	3.2	73.5
3×185	3.4	3.3	77.0
3×240	3.4	3.5	82.0
3×300	3.4	3.6	87.0

## MYJV-8.7/10kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	4.5	2.4	45.5
3×35	4.5	2.5	48.5
3×50	4.5	2.6	51.2
3×70	4.5	2.7	55.0
3×95	4.5	2.8	58.5
3×120	4.5	2.9	62.0
3×150	4.5	3.0	65.5
3×185	4.5	3.1	69.5
3×240	4.5	3.3	74.5
3×300	4.5	3.4	79.5

## MYJV22-8.7/10kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	4.5	2.5	51.0
3×35	4.5	2.6	53.5
3×50	4.5	2.7	56.5
3×70	4.5	2.8	60.2
3×95	4.5	2.9	64.0
3×120	4.5	3.0	68.0
3×150	4.5	3.1	72.0
3×185	4.5	3.2	75.0
3×240	4.5	3.4	80.5
3×300	4.5	3.5	85.5

## MYJV32-8.7/10kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	4.5	2.5	54.0
3×35	4.5	2.6	57.0
3×50	4.5	2.7	60.0
3×70	4.5	2.8	65.5
3×95	4.5	2.9	69.0
3×120	4.5	3.0	72.0
3×150	4.5	3.1	76.0
3×185	4.5	3.2	80.0
3×240	4.5	3.4	85.0
3×300	4.5	3.5	90.0

MYJV42-8.7/10kV

芯数×导体标称截面 mm <sup>2</sup> Core No.×Nominal cross-section area of conductor	绝缘厚度 mm Insulation thickness	护套厚度 mm Sheath thickness	电缆近似外径 mm Approx. outer diameter of cable
3×25	3.4	2.7	58.0
3×35	3.4	2.8	61.0
3×50	3.4	2.9	64.0
3×70	3.4	3.0	68.0
3×95	3.4	3.1	71.5
3×120	3.4	3.2	75.0
3×150	3.4	3.4	79.0
3×185	3.4	3.5	82.5
3×240	3.4	3.6	88.0
3×300	3.4	3.8	92.0

八、电缆主要技术参数

Main technical parameter of cable

1、20℃时导体最大直流电阻值应满足GB/T3956标准中的2类导体的规定：

Max. conductor DC resistance at 20℃ shall meet the requirement of class 2 conductor stipulated in GB/T3956 standard.

导体标称截面 mm <sup>2</sup> Nominal cross-section area of conductor	20℃时导体最大直流电阻 MQ.km Max. conductor DC resistance at 20℃	导体标称截面 mm <sup>2</sup> Nominal cross section area of conductor	20℃时导体最大直流电阻 MQ.km Max. conductor DC resistance at 20℃
1.5	12.1	50	0.387
2.5	7.41	70	0.268
4	4.61	95	0.193
6	3.08	120	0.153
10	1.83	150	0.124
16	1.15	185	0.0991
25	0.727	240	0.0754
35	0.524	300	0.0601

2、工频交流耐压试验

Power Frequency AC Withstand Voltage Test

额定电压 kV Nominal voltage	0.6/1	1.8/3	3.6/6	6/6, 6/10	8.7/10
试验电压 kV Test voltage	3.5	6.5	12.5	21	30.5
放电量 pc Discharge voltage	试验条件：环境温度下5分钟。 Test condition: 5 minutes under environment temperature 试验要求：绝缘应无击穿。 Test requirement: insulation without puncture				

3、局部放电量

Magnitude of partial discharge

应在1.73 U<sub>0</sub>电压下测量局部放电量，其数值应不高于以下规定：

Magnitude of partial discharge shall be measured under voltage of 1.73 U<sub>0</sub>. and value shall not be higher than the following provisions.

额定电压 kV Nominal voltage	3.6/6	6/6, 6/10	8.7/10
放电量 pc Discharge capacity	10		

4、电缆载流量 (A)

Cable current loading capacity

参照普通YJV系列交联电力电缆的载流量值。

Please refer to current-loading capacity of common YJV series cross linked power cable.

# 煤矿用额定电压1.8/3kV及以下聚氯乙烯绝缘阻燃电力电缆

Flame Retardant Power Cable with PVC insulation, rated voltage of 1.8/3kV or lower for Coal Mine

## 一、生产执行标准

MT818.12-2009《煤矿用电缆额定电压1.8/3kV及以下煤矿用聚氯乙烯绝缘电力电缆》。

## Production standards

MT818.12-2009 "Copper core fixed installation flame retardant power cable of rated voltage 1.8/3kV or lower for coal mine application-part 2 PVC insulation power cable for coal mine application".

## 二、工作条件

- 1、电缆导体的允许最高工作温度为70℃；
- 2、短路时（最长持续时间不超过5秒）电缆导体的最高温度不超过160℃；
- 3、电缆敷设温度不低于0℃；
- 4、最小弯曲半径为电缆直径的15倍。

## Operational performance

1. Max. working temperature of cable conductor is 70°C.
2. Max. temperature of cable conductor is no more than 160°C during Short Circuit. (The maximum duration is no more than 5 seconds.)
3. Cable installation temperature is no less than 0°C.
4. Minimum bending radius for 15 times of cable diameter.

## 三、型号名称

## Cable type & name

型号 Type	名称 Description
MVV	煤矿用聚氯乙烯绝缘聚氯乙烯护套电力电缆 PVC insulation PVC sheath power cable for MHYV
MVV22	煤矿用聚氯乙烯绝缘钢带铠装聚氯乙烯护套电力电缆 PVC insulation steel tape armoring PVC sheath power MHYV

## 四、生产范围

## Manufacturing range

型号 Type	芯数 Core number	额定电压 kV Rated voltage	
		0.6/1	1.8/3
		标称截面 mm <sup>2</sup> Nominal cross section	
MVV	3	1.5-300	10-300
MVV22	3	2.5-300	10-300
MVV	3+1	4-300	10-300
MVV22	3+1	4-300	10-300
MVV	4	4-185	4-185
MVV22	4	4-185	4-185

## 五、电缆绝缘标称厚度

## Nominal thickness of cable insulation

导体标称截面 mm <sup>2</sup> Nominal cross section area of conductor	额定电压 kV Rated voltage		导体标称截面 mm <sup>2</sup> Nominal cross section area of conductor	额定电压 kV Rated voltage	
	0.6/1	1.8/3		0.6/1	1.8/3
	绝缘标称厚度 mm Insulation nominal thickness			绝缘标称厚度 mm Insulation nominal thickness	
1.5	0.8	/	50	1.4	2.2
2.5	0.8	/	70	1.4	2.2
4	1.0	/	95	1.6	2.2
6	1.0	/	120	1.6	2.2
10	1.0	2.2	150	1.8	2.2
16	1.0	2.2	185	2.0	2.2
25	1.2	2.2	240	2.2	2.2
35	1.2	2.2	300	2.4	2.4

## 六、产品结构示意图

## The figure of cable structure



## 七、产品特点

## Product characteristic

- 1、具有优异的阻燃性能，满足煤矿用电缆特殊要求；
- 2、成品电缆的阻燃性能的试验方法和判定规则符合MT 386要求。

1. The cable has good feature of flame resistance. It can meet special requirement of Coal mine used cable.
2. Flame retardant performance of finished cable shall meet all kinds of test requirement stipulated in MT386 standard.

# 煤矿用额定电压0.66/1.14kV及以下移动类 阻燃软电缆

Flame Retardant Mobile Flexible Cable with Rated Voltage  
of 0.66 / 1.14 kV or Lower for Coal Mine

本产品适用于煤矿用额定电压0.66/1.14kV及以下移动软电缆。

The product is Movable flexible cable which used in coal mine with rated voltage of 0.66/1.14kV and below.

## 一、生产执行标准

MT818.1-2009 煤矿用电缆第1部分：移动类软电缆一般规定；

MT818.5-2009 煤矿用电缆第5部分：额定电压0.66/1.14kV及以下移动软电缆；

MT386 煤矿用阻燃电缆阻燃性的试验方法和判定规则。

## Executive Standard

MT818.1-2009 Cables for coal mine, part 1: general provisions for Movable flexible cable.

MT818.5-2009 Cables for coal mine, part 5: Movable flexible cable with rated voltage of 0.66/1.14kV and below.

MT386 Test methods and judging rules of flame retardant performance of flame retardant cable for the coal mine.

## 二、工作条件

1. 额定电压U<sub>0</sub>/U为0.38/0.66kV和0.66/1.14kV；
2. 电缆导体的长期允许工作温度为65℃；
3. 电缆的最小弯曲半径为电缆直径的6倍。

## Operational performance

1. Rated voltage U<sub>0</sub>/U is 0.38/0.66kV and 0.66/1.14kV.
2. Long-term working temperature of cable conductor is 65℃.
3. Min. bending radius of cable is 6 times that of cable diameter.

## 三、型号名称

## Type & Description

型号 Type	名称 Description	用途 Application
MY-0.38/0.66kV	煤矿用移动橡胶套软电缆 Mobile rubber jacketed flexible cable for coal mine	额定电压为0.38/0.66kV各种井下移动采煤设备的电源连接 The cable is used to connect power supply of all kinds of mobile mining equipment under well with rated voltage of 0.38/0.66kV.
MYP-0.38/0.66kV	煤矿用移动屏蔽橡胶套软电缆 Mobile shielding rubber jacketed flexible cable for coal mine	
MYP-0.66/1.14kV	煤矿用移动屏蔽橡胶套软电缆 Mobile shielding rubber jacketed flexible cable for coal mine	

## 五、规格

## Specification

1. 该电缆的规格用芯数×导体标称截面（mm<sup>2</sup>）表示；
2. 该电缆的规格有单芯和4芯（3+1）两种，具体见下表：

Definition of cable specification core no.\*nominal cross section area of conductor(mm<sup>2</sup>)  
Two kinds of cable specification single core and 4 cores(3+1).  
For details, please see the following table.

芯数×导体标称截面 mm <sup>2</sup> Core No.×nominal cross section area of conductor	标称厚度 mm Nominal thickness		电缆外径 mm Outer diameter of cable
	绝缘 Insulation	护套 Sheath	MY-0.38/0.66kV
1×4	1.4	1.5	8.0~10.0
1×6	1.4	1.6	9.0~12.0
1×10	1.4	1.8	11.0~14.0

1×16	1.6	1.9	12.0~15.0
1×25	1.8	2.0	14.0~17.5
1×35	1.8	2.2	16.0~19.5
1×50	2.0	2.4	18.5~22.5
1×70	2.0	2.6	21.0~25.0
1×95	2.2	2.8	23.5~28.5
1×120	2.2	3.0	25.5~29.5
1×150	2.4	3.2	28.0~33.0
1×185	2.4	3.4	30.5~35.5
1×240	2.6	3.5	34.0~39.5
1×300	2.6	3.6	37.0~43.0
1×400	2.8	3.8	42.0~48.0

芯数×导体标称截面 mm <sup>2</sup> Core No.×nominal cross section area of conductor	标称厚度 mm Nominal thickness		电缆外径 mm Outer diameter of cable	
	动力线芯绝缘 Power core insulation	护套 Sheath	MY-0.38/0.66KV	MYP-0.38/0.66KV
3×4+4	1.4	3.5	19.0~22.5	22.0~26.5
3×6+4	1.4	3.5	21.0~25.5	24.0~29.0
3×10+10	1.6	4.0	25.0~30.0	28.0~32.5
3×16+10	1.6	4.0	27.5~32.0	30.5~35.5
3×25+16	1.8	4.5	32.5~37.5	35.5~41.0
3×35+16	1.8	4.5	35.5~41.0	38.5~44.5
3×50+16	2.0	5.0	41.5~47.5	44.5~51.0
3×70+25	2.0	5.0	46.0~53.0	49.0~56.0
3×95+25	2.2	5.5	52.5~59.5	55.5~63.0
3×120+35	2.2	5.5	56.0~63.5	59.0~67.0
3×150+50	2.4	6.0	62.5~70.5	65.5~74.0

芯数×导体标称截面 mm <sup>2</sup> Core No.×nominal cross section area of conductor	标称厚度 mm Nominal thickness		电缆外径 mm Outer diameter of cable	
	动力线芯绝缘 Power core insulation	护套 Sheath	MYP0.66/1.14kv MYPE0.66/1.14kv	
3×10+10	1.8	4.5	30.0~35.0	
3×16+10	1.8	4.5	32.5~37.5	
3×25+16	2.0	5.0	47.5~43.0	
3×35+16	2.0	5.0	40.5~46.5	
3×50+16	2.2	5.5	46.5~53.0	
3×70+25	2.2	5.5	51.0~58.0	
3×95+25	2.4	6.0	57.5~65.0	
3×120+35	2.4	6.0	61.0~69.0	
3×150+50	2.6	6.0	66.5~75.0	

## 六、主要技术参数

1、20℃导体直流电阻在20℃时每芯导体电阻应符合GB/T 3956中第5种导体（即多股软芯结构）的要求；

2、20℃绝缘电阻橡皮绝缘动力线芯的绝缘电阻应符合下表规定：

## Main technical parameter

1. Conductor DC resistance at 20℃ Resistance of each core conductor shall meet the requirements of class 5 conductor (m-multi-strand flexible structure) stipulated in GB/T3956 standard at 20℃.

2. Insulated resistance at 20℃ Insulated resistance of rubber Insulation power core shall meet the requirements stipulated in the following table.

动力线芯标称截面 mm <sup>2</sup> Nominal crosssection area of power core	20℃时绝缘电阻 MΩ.km Insulation Resistance at 20℃	动力线芯标称截面 mm <sup>2</sup> Nominal crosssection area of power core	20℃时绝缘电阻 MΩ.km Insulation Resistance at 20℃
4	600	95	200
6	450	120	200
10	400	150	180
16	350	185	180
25	300	240	160
35	250	300	140
50	250	400	140
70	200	/	/

### 3、工频电压试验

电缆的绝缘动力线芯应经受下表规定的工频电压试验而不被击穿：

额定电压 U <sub>0</sub> /U (kV) Rated voltage	试验电压 (有效值) (kV) Test voltage (Effective value)	施加电压时间 (min) Applied voltage time
0.38/0.66	3.0	5
0.66/1.14	3.7	

### A.C. voltage test

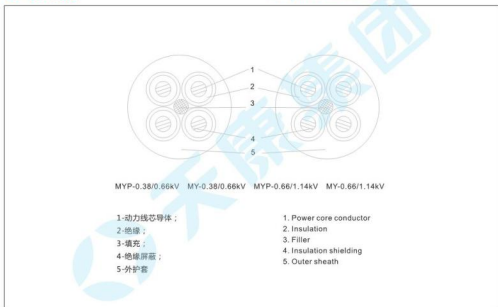
Insulated power core of cable shall endure following A.C. voltage test without puncture.

4、成品电缆阻燃性能均应满足MT386标准中各项试验要求。

Flame retardant performance of finished cable can meet all kinds of test requirements stipulated in MT386 standard.

## 七、电缆结构图

The figure of cable structure





## 八、电缆标志

1、绝缘线芯识别标志：采用颜色或表面印阿拉伯数字，当采用颜色时，单芯电缆绝缘为红色或白色；4芯电缆动力线芯为红色、白色、浅蓝色，地线芯为黑色。当采用阿拉伯数字编码时，4芯电缆动力线芯为1、2、3，地线芯为0；

2、电缆识别标志：井下用不同电压等级电缆的护套宜采用不同的识别颜色，见下表：

U0/U	3.6/6	1.9/3.3	0.66/1.14	0.38/0.66及以下 0.38/0.66 or lower
护套颜色 Sheath color	红 Red	黑 Black	黄 Yellow	黑 Black

成品电缆护套表面至少应明显印有：制造厂名、型号规格、电压、煤安标志的内容。

## 九、交货长度

- 1、电缆根据双方的协议长度交货；
- 2、无协议时，按产品标准规定：最小短段长度为40米，短段长度应不超过总长度的10%；
- 3、长度计量误差不得超过±0.5%。

## Cable mark

1. Insulation core identification mark: the use of color or surface printed Arabic numerals. When using color, single-core cable insulation is red or white, 4-core cable power cord is red, white, light blue, ground wire core is black. When using Arabic numerals, 4-core cable power line core is 1, 2, 3, ground core is 0.

2. Identification mark of cable  
Different cable sheath color will be used to identify cable under well with different voltage degree. Please see the following table.

Manufacturer, type, voltage and coal mine safety mark etc. will be clearly printed on the surface of finished cable sheath.

## Delivery length

Delivery length of cable depends on final both agreements. If there is no final agreement, the cable no shorter than 40 meters is allowed for delivery, which accounts for no more than 10% of the total length. Length error of cable is no more than ±0.5%.



## 特种电缆 Special Cable



无卤低烟阻燃、耐火电缆

LSOH Flame Retardant and Fire-Resisting Cables

耐火电缆

Fire resisting cable

丁腈聚氯乙烯复合软电缆

Butyronitrile PVC compound Flexible Cable

光伏电缆

Photovoltaic cable

风力发电用电缆

Wind power cable

AF-200、AF-260型氟塑料安装线

AF-200 & AF-260 Fluoroplastics installation wire

AF-125型氟塑料安装线

AF-125 type Fluoroplastics installation wire

180°C电机绕组引接软电缆

180°C flexible cable for motor winding connection

电缆分配系统用物理发泡聚乙烯绝缘同轴电缆

Physical Foam PE Insulation Coaxial Cable for Cable Distribution System

实芯聚乙烯绝缘射频电缆

Solid-polyethylene insulated flexible radio-frequency cables

交流额定电压3kV及以下轨道交通车辆用电缆

AC rated voltage 3kV and below for rail traffic vehicles

# 无卤低烟阻燃、耐火电缆

## LSOH Flame Retardant and Fire-Resisting Cables

本产品适用于额定电压600/1000V及以下低烟无卤要求的电力系统或控制及监控回路中。

This product is suitable for power systems or control & monitoring circuits with low smoke and halogen-free requirements, with the rated voltages up to and including 600/1000V.

### 一、生产执行标准

参照GB/T 9330-2008、GB/T 12706-2008、GB/T 19666-2005。

### Executive standard

According to GB/T 9330-2008, GB/T 12706-2008, GB/T 19666-2005 standard.

### 二、使用特性

1. 电缆长期允许工作温度90℃。
2. 电缆敷设温度应不低于0℃，推荐弯曲半径：无卤阻燃控制电缆：

①有铠装和屏蔽结构的电缆：其弯曲半径不小

于电缆外径的12倍；

- ②其它结构电缆：其弯曲半径不小于电缆外径的6倍

3. 无卤阻燃电力电缆：

- ①单芯电缆：其弯曲半径不小于电缆外径的20倍；

- ②多芯电缆：其弯曲半径不小于电缆外径的15倍。

### Operational performance

1. Long-term working temperature of cable is 90℃, and the installation temperature should not lower than 0℃.

2. Recommended bending radius is as following: No halogen flame retardant control cable:

The bending radius is not less than 12 times of the outer diameter of the cable with structure of armoring shielding.

The bending radius is not less than 6 times of the outer diameter of the cable, with other structure.

3. No halogen flame retardant power cable:

Bending radius is no less than 20 times that of cable outer diameter for cable with single core

Bending radius is no less than 15 times that of cable outer diameter for cable with multi cores.

### 三、型号名称

### Cable type & name

1. 电缆的型号名称如下表

Cable type & name as following

型号 Type		名称 Description
铜芯 Copper core	铝芯 Aluminum core	
WDZ-YJY	WDZ-YJLY	铜芯(铝芯)交联聚乙烯绝缘无卤低烟阻燃电力电缆 Copper core (aluminum core) XLPE insulation low smoke no halogen flame retardant power cable
WDZ-YJY23	WDZ-YJLY23	铜芯(铝芯)交联聚乙烯绝缘无卤低烟阻燃电力电缆 Copper core (aluminum core) XLPE insulation low smoke no halogen flame retardant power cable
WDZ-YJY33	WDZ-YJLY33	铜芯(铝芯)交联聚乙烯绝缘细钢丝铠装无卤低烟阻燃电力电缆 Copper core (aluminum core) XLPE insulation thin steel wire armoring low smoke no halogen flame retardant power cable
WDZN-YJY	/	铜芯交联聚乙烯绝缘无卤低烟阻燃耐火电力电缆 Copper core XLPE insulation low smoke no halogen flame retardant fire resistant power cable
WDZN-YJY23	/	铜芯交联聚乙烯绝缘钢带铠装无卤低烟阻燃耐火电力电缆 Copper core XLPE insulation steel tape armoring low smoke no halogen flame retardant fire resistant power cable
WDZN-YJY33	/	铜芯交联聚乙烯绝缘细钢丝铠装无卤低烟阻燃耐火电力电缆 Copper core XLPE insulation thin steel wire armoring low smoke no halogen flame retardant fire resistant power cable

型号 Type	名称 Description
WDZ-KYJY	铜芯交联聚乙烯绝缘无卤低烟阻燃控制电缆 Copper core XLPE insulation low smoke no halogen flame retardant control cable
WDZ-KYJYP	铜芯交联聚乙烯绝缘铜丝屏蔽无卤低烟阻燃控制电缆 Copper core XLPE insulation copper wire shielding low smoke no halogen flame retardant control cable
WDZ-KYJYP2	铜芯交联聚乙烯绝缘铜带屏蔽无卤低烟阻燃控制电缆 Copper core XLPE insulation copper tape shielding low smoke no halogen flame retardant control cable
WDZ-KYJYP2-23	铜芯交联聚乙烯绝缘铜带屏蔽钢带铠装无卤低烟阻燃控制电缆 Copper core XLPE insulation copper tape shielding steel tape armoring low smoke no halogen flame retardant control cable
WDZ-KYJY33	铜芯交联聚乙烯绝缘细钢丝铠装无卤低烟阻燃控制电缆 Copper core XLPE insulation thin steel wire armoring low smoke no halogen flame retardant control cable
WDZN-KYJY	铜芯交联聚乙烯绝缘无卤低烟阻燃耐火控制电缆 Copper core XLPE insulation low smoke no halogen flame retardant fire resistant control cable
WDZN-KYJYP2	铜芯交联聚乙烯绝缘铜带屏蔽无卤低烟阻燃耐火控制电缆 Copper core XLPE insulation copper tape shielding low smoke no halogen flame retardant fire resistant control cable
WDZN-KYJYP2-23	铜芯交联聚乙烯绝缘铜带屏蔽钢带铠装无卤低烟阻燃耐火控制电缆 Copper core XLPE insulation copper tape shielding steel tape armoring low smoke no halogen flame retardant fire resistant control cable

## 2、主要名词术语解释

**低烟：**在规定试验条件下，试样受热分解或燃烧释放出的烟比较少，符合规定指标的特性；

**无卤：**在规定试验条件下，试样燃烧时放出的卤化氢气体的含量极少，符合规定指标的特性；

**阻燃：**在一定的试验条件下，试样被燃烧，在撤去火源后，火焰的蔓延仅在规定的范围内，残焰或残灼在规定的时间内能自行熄灭的特性。

## Definition of main noun glossary

**Low smoke:** cable sample discharges little smoke when be heated or be burn under stipulated test condition, meeting the requirement of stipulated target.

**No halogen:** The amount of hydrogen halide gas released during the sample combustion is very small, with under stipulated test condition, meeting the requirement of stipulated target.

**Flame retardant:** under certain test condition, cable sample is burn. When fire resource is withdrawn, flame spreading is controlled within stipulated range. Remnant spark or burning can put out by itself within stipulated time.

## 四、电缆的规格

## Cable specification

型号 Type	额定电压 V Rated voltage	导体标称截面mm <sup>2</sup> Nominal cross section area of conductor				
		0.5	0.75	1.0, 1.5	2.4, 4.6	10
WDZ-KYJY, WDZ-KYJYP	450/750 600/1000	芯数 Core number				
WDZ-KYJYP2, WDZ-KYJY33 WDZ-KYJYP2-23		2-61		2-37	2-14	
WDZN-KYJY		4-61				
WDZN-KYJYP2 WDZN-KYJYP2-23		/	2-61			
WDZ-YJY, WDZ-YJLY			4-61			
WDZ-YJY23, WDZ-YJLY23		单芯single core: 2.5mm <sup>2</sup> ~500mm <sup>2</sup> 2, 3, 4, 5, 3+1, 3+2, 4+1芯core: 2.5~300mm <sup>2</sup>				
WDZ-YJY33, WDZ-YJLY33						
WDZN-YJY, WDZN-YJY23						
WDZN-YJY33						

## 五、主要技术指标

1. 导体直流电阻符合GB/T3956的规定；
2. 90℃绝缘电阻常数不小于3.67MΩ.km，体积电阻率不小于10Ω.Cm；
3. 电力电缆均应经受3.5kV交流电压试验，5min绝缘不击穿；
4. 控制电缆应经受3kV交流电试验，5min绝缘不击穿；
5. 无卤低烟阻燃性能指标：

## Main technical parameter

1. Conductor DC resistance is in accordance with GB/ T3956 standard.
2. Insulated resistance constant is no less than 3.67MΩ.km at 90°C. Volume resistance ratio is no less than 10Ω.Cm.
3. Power cable shall endure 3.5kV A.C. voltage test for 5 minutes without puncture.
4. performance target of no halogen, low smoke and flame retardant.

试验项目 Test item	单位 Unit	性能要求 Performance requirement	试验方法 Test method
烟密度试验 Smoke density test 最小透光率 Min. luminousness	%	60	GB/T17651-1998
腐蚀性试验 Corrosive test 最小PH值 Min. PH value 电导率最大值 Max. conductive ratio	∅ Simm	4.3 10	GB/T17650.2-1998 (IEC60754)
卤化氢气体含量 Hydrogen halide gas content	mg/g	<5	GB/T17650.1-1998 (IEC60754)
成束试验 Bundle burning test	-	-	GB/T18380.3-2008
试验级别 Test class	-	A, B, C	
供火时间 Time for fire	min	40, 40, 20	
每米可燃物总体积 Total volume of combustible per meter	L/m	7, 3.5, 1.5	
炭化高度 Carboniaed height	m	2.5, 2.5, 2.5	

## 六、交货长度

允许根据双方协议长度交货，  
长度计量误差不得超过±0.5%。

## Delivery length

Delivery length depends on both agreement with length error  
no more than ±0.5%.

# 耐火电缆

## Fire Resistant Cable

本产品适用于高层建筑、油田、电站、电厂、矿山、化工、地铁等要求防火条件高的场合，以及应急电源、消防泵、电梯通讯信号系统的应急电缆。该产品具有较高的耐火能力，在经受火焰直接燃烧情况下，在一定的时间内（不小于3h）不发生短路和断路故障，确保继续供电以维持照明和传输信号，保护人员有足够的时间安全撤离，且有利于灭火和减少损失。

### 一、生产执行标准

GB/T19666-2005及相应的国家标准。

### 二、使用条件

1. 交流额定电压：U0/U（V系列：600/1000V，K系列：450/750V，B系列300/500V）；
2. 电缆最高长期工作温度
  - ① 聚氯乙烯绝缘：70°C和105°C两种；
  - ② 交联聚乙烯绝缘：90°C；
3. 电缆安装敷设温度应不低于0°C；
4. 敷设推荐的允许弯曲半径：铠装型为电缆外径的20倍，无铠装为电缆外径的12倍。

### 三、基本型号、名称如表1

It is used in the environment with high demand on fire resistant performance such as high-rise building, oil field, power station, power plant, mine, chemical industry, subway and so on. It is also necessary cable prepared for emergency power, fire-flight pump and communication system for elevator. In time of being directly fired by flame, it could endure continually supplying power and transmitted signal to keep lighting within certain time (no less than 3 hours) for people to retreat safely and also to benefit to extinguish fire and reduce loss.

### Executive standard

GB/T 19666-2005.

### Operational performance

1. AC rated voltage: U0/U (V series:600/1000V, K series:450/750V; Bseries 450/500V)
2. Max temperature of long term working is 70°C&105°C for cable with PVC insulation and 90°C for cable with XLPE insulation.
3. Temperature for installation is no lower than 0°C.
4. Recommended Bending Radius for laying:Armored, 20 times of cable diameter.Unarmored, 12times of cable outside diameter.

### Type and Description in Table 1

Table 1

型号 Type	名称 Description	备注 Note
NH-BV NH-BVV	铜芯聚氯乙烯绝缘耐火电线 Fire resistant wire with Cu core, PVC insulation 铜芯聚氯乙烯绝缘聚氯乙烯护套圆形耐火电线 Round type fire resistant wire with Cu core, PVC insulation and sheath	
NH-KVV NH-KVV22	铜芯聚氯乙烯绝缘聚氯乙烯护套耐火控制电缆 Fire resistant control cable with Cu core, PVC insulation and sheath 铜芯聚氯乙烯绝缘聚氯乙烯护套耐火控制电缆 Fire resistant control cable with Cu core, PVC insulation and sheath, steel tape armor	注：本公司还可以向用户提供钢丝铠装结构的耐火电缆，订货时可将原型号中的“22”改为“32”即可。 Note: We also produce fire resistant cable with steel wire armor. “22” should be replaced by “32” when ordering
NH-VV NH-VV22	铜芯聚氯乙烯绝缘聚氯乙烯护套耐火电力电缆 Fire resistant power cable with Cu core, PVC insulation and sheath 铜芯聚氯乙烯绝缘聚氯乙烯护套耐火电力电缆 Fire resistant power cable with Cu core, PVC insulation and sheath, steel tape armor	
NH-YJV NH-YJV22	铜芯交联聚乙烯绝缘聚氯乙烯护套耐火电力电缆 Fire resistant power cable with Cu core, XLPE insulation and PVC sheath 铜芯交联聚乙烯绝缘聚氯乙烯护套耐火电力电缆 Fire resistant power cable with Cu core, XLPE insulation and PVC sheath, steel tape armor	

## 四、规格范围如表2

## Specification Range in Table 2

Table 2

型号 Type	电压等级 V Voltage degree	规格、截面 Specification Cross section area
NH-VV, NH-VV22 NH-YJV, NH-YJV22	600/1000	芯数：1-5芯，3+2芯 截面：2.5-240 mm <sup>2</sup> Core No.: 1-5 core, 3+2 core Cross section area: 2.5-240 mm <sup>2</sup>
NH-KVV, NH-KVV22	450/750	芯数：2-61芯，截面：2.5-10 mm <sup>2</sup> Core No.: 2-61 core, Cross section area: 2.5-10 mm <sup>2</sup>
NH-BV, NH-BVV	450/750 300/500	芯数：1-5芯，截面：2.5-240 mm <sup>2</sup> Core No.: 1-5, Core Cross section area: 2.5-240 mm <sup>2</sup>

## 五、技术特性

- 1、产品的电气性能和物理机械性能与普通同类产品相同；
- 2、电缆的载流量和普通同类产品相同；
- 3、耐火特性应符合GB/T19666-2005标准要求：电缆在燃烧试验期间2A熔丝不熔断；
- 4、耐火电缆的参考外径，截面在25mm<sup>2</sup>及以下的比普通同型号的产品规格大15%，截面在25mm<sup>2</sup>以上的比普通同型号产品规格大25%。

## 六、使用注意事项

- 1、电缆接头时，导体和绝缘之间应用云母带重叠绕包扎紧作为耐火层，其它施工方法与同类产品一致；
- 2、电缆应严格避免锐器损坏，否则会降低电缆的耐火性能。

## 七、交货要求

- 允许根据双方协议长度交货；  
长度计量误差不得超过±0.5%。

## Technical Performance

1. Electric performance and mechanical & physical performance of cable is the same to common cable in similar category.
2. Current-loading capacity of cable is the same to common cable in similar category.
3. Fire resistant performance shall meet the requirement of GB/T19666-2005 standard. 2A fuse wire won't break during burning test period.
4. Outside diameter of fire resistant cable with cross section 25mm<sup>2</sup> or lower is bigger than that of common cable by 15%. Outside diameter of fire resistant cable with cross section more than 25mm<sup>2</sup> is bigger than that of common cable by 25%.

## Cautions

1. Mica tape should be wrapped around between insulation and conductor as fire resistant layer in connection of cable. Other installing measures may be taken according to that for similar type cable.
2. User should strictly avoid damage on cable with sharp-edged objects. Otherwise it would affect fire resistant performance of cable.

## Delivery length

- Delivery length of cable depends on both agreements with length error allowance of ±0.5%.



# 丁腈聚氯乙烯复合物软电缆

## Butyronitrile PVC Compound Flexible Cable

本产品适用于交流额定电压450/750V及以下控制、监控回路、各种移动电器、无线电信设备和照明灯座接线用以及保护线路等要求在低温下运行的场合。

This product is suitable for the AC rated voltage up to and including 450/750V, the requirements for operation at low temperature with using in Control/monitoring circuits, various mobile appliances, radio equipment and lighting socket connection and protection lines, etc.

### 一、生产执行标准

企业标准。

### Executive standard

Enterprise standard.

### 二、使用条件

1. 电线导体长期工作温度：硅橡胶绝缘不超过180℃；聚氯乙烯绝缘不超过70℃；
2. 电线最低环境温度为-40℃；
3. 允许弯曲半径一般应不小于电缆外径的8倍；软结构电缆应不小于电缆外径的6倍。

### Operational performance

1. Long-term working temperature of wire conductor is no more than 180℃ for cable with Silicon Rubber Insulation, 70℃ for that with PVC insulation.
2. Min. environment temperature of wire is -40℃.
3. Bending radius allowed by wire is no less than 8 times that of cable O.D OR 6 times for cable with soft structure.

### 三、电缆型号

### Type and description

型号 Type	名称 Description	备注 Note
YVFR	铜芯丁腈聚氯乙烯绝缘及护套软电力电缆 Soft power cable with Cu core, butadiene PVC insulation and sheath	1. 电缆如需镀锡铜线编织屏蔽结构，应将原型号中的“P”改为“P1”； 2. 如导体需采用镀锡铜线，应在订货中说明，型号中不作规定。 If tin-plated copper wire braided shielding is needed, the letter “P” in the original type of cable shall be changed into the letter “P1”. If tinned copper wire conductor is used, the relevant description shall be made in the order, but it is not necessary to give other description in cable type.
YVFB	铜芯丁腈聚氯乙烯绝缘及护套扁平型软电力电缆 Flat type soft power cable with Cu core, butadiene PVC insulation and sheath	
YGVFB	铜芯硅橡胶绝缘丁腈聚氯乙烯护套扁平型软电力电缆 Flat type soft power cable with Cu core, silicon rubber insulation and butadiene PVC sheath	
KVFR	铜芯丁腈聚氯乙烯绝缘及护套软控制电缆 Soft control cable with Cu core, butadiene PVC insulation and sheath	
KVFRP	铜芯丁腈聚氯乙烯绝缘及护套铜丝编织屏蔽软控制电缆 Soft control cable with Cu core, butadiene PVC insulation and sheath, copper wire braided shielding	
KVFB	铜芯丁腈聚氯乙烯绝缘及护套扁平型软控制电缆 Flat type soft control cable with Cu core, butadiene PVC insulation and sheath	
KGVFB	铜芯硅橡胶绝缘丁腈聚氯乙烯护套扁平型软控制电缆 Flat type soft control cable with Cu core, silicon rubber insulation and butadiene PVC sheath	

### 四、规格范围

### Type and Specification scope

型号 Type	规格范围 Specification scope
YVFR YVFB YGVFB	1 core: 1.5~300mm <sup>2</sup> 2, 3, 4, 5, 3+1core: 1.5~185mm <sup>2</sup>
KVFR KVFRP	2~61cores: 0.5~2.5mm <sup>2</sup>
KVFB KGVFB	2~10cores: 1.5~6mm <sup>2</sup>

## 五、主要技术指标

1、20℃时导体最大直流电阻值应满足表2规定：

## Main Technical Parameter

Max. DC resistance of conductor at 20°C shall meet the requirement of the following table

Table 2

标称截面(mm <sup>2</sup> ) Nominal cross section area	20℃时导体直流电阻 $\leq\Omega/\text{km}$ Conductor DC resistance at 20°C	
	不镀锡 Not tinned	镀锡 Tinned
0.5	39.0	40.1
0.75	26.0	26.7
1.0	19.5	20.0
1.5	13.3	13.7
2.5	7.98	8.21
4	4.95	5.09
6	3.30	3.39
10	1.91	1.95
16	1.21	1.24
25	0.78	0.795
35	0.554	0.565
50	0.386	0.393
70	0.272	0.277
95	0.206	0.210
120	0.161	0.164
150	0.129	0.132
185	0.106	0.108

2、成品控制电缆应经工频交流试验电3000V、5min电压试验，绝缘无击穿；

3、成品电力电缆应经工频交流试验电压3500V、5min电压试验，绝缘无击穿。

2. The finished product control cable should be subjected to the Power Frequency AC Withstand Voltage Test (with 3000v, 5min), the insulation is not breakdown.

3. The finished product power cable should be subjected to the Power Frequency AC Withstand Voltage Test (with 3500v, 5min), the insulation is not breakdown

## 六、交货长度

允许根据双方协议长度交货；  
长度计量误差不超过 $\pm 0.5\%$ 。

## Delivery length

Delivery length of cable depends on both agreements with length error allowance of  $\pm 0.5\%$ 。

# 光伏电缆

## Photovoltaic cable

光伏发电产生的低压直流电需转换为交流电，连接光伏电池与交流逆变器间的电缆即为光伏电缆。本产品适用于最高允许1.8kV（线芯对线芯，非接地系统）直流电压。在光伏系统中CD侧使用的单芯软电缆（电线），该产品适合于II类安全等级下使用，电缆运行的环境温度最高到90℃，电缆可以多根并联使用。本产品运用先进的辐照交联工艺，采用低烟无卤阻燃材料生产，产品具有耐高温、抗臭氧、抗紫外线短时过载能力强、寿命长、耐磨、耐油、防腐、高抗拉等优点。

### 一、电缆额定电压

AC U<sub>0</sub>/U=0.6/1kV

DC 1.8kV（线芯对线芯，非接地系统，没有负载下的回路）如果电缆用在直流系统中，其导体间的额定电压应不大于电缆AC额定值的1.5倍，在单相接地直流系统中，此数值应乘以0.5的系数。

### 二、温度范围

环境温度：-40℃到+90℃；

导体最高工作温度：120℃；电缆运行的环境温度最高到90℃，依据EN60216-1标准进行考核，其绝缘和护套的温度指数是120℃，5秒钟短路温度是200℃，期望使用寿命是25年。

### 三、型号规格

型号 Type	导体 Conductor	芯数 Core number	标称截面mm <sup>2</sup> Nominal cross section area	名称 Name
FV	镀锡铜丝 Tinned copper	1	1.5-35	无卤阻燃辐照绝缘和无卤阻燃辐照护套料光伏电缆 Photovoltaic cable with halogen free flame resistant irradiated insulation and sheath

### 四、电缆尺寸参数

芯数*标称截面 Core No.*normal cross section area	导体种类 Conductor category	参考外径 Outer diameter(mm)
1*1.5	5	4.8
1*2.5	5	5.2
1*4	5	6.8
1*6	5	7.3
1*10	5	8.5
1*16	5	9.8
1*25	5	11.0
1*35	5	13.1

Low voltage DC generated by Photovoltaic should be converted into AC. Photovoltaic cable is used to connect Photovoltaic battery and DC/AC converter. It applies to maximum 1.8kV DC (core to core, non grounded system) In photovoltaic system single core cable (wire) is used in DC side, besides photovoltaic cable is used in Class II class safety level and working in environment temperature of Max 90 °C. We can use many parallel cables. It adopts advanced process of irradiation XLPE and it is used low smoke halogen free material with advantage of high temperature resistance, ozone resistance, ultraviolet resistance, aging resistance, oil resistance, wear resistance, erosion resistance, high tensile and strong instantaneous overload capacity.

### Rated Voltage

AC U<sub>0</sub>/U=0.6/1.6kV

DC 1.8kV(core to core, non grounded system, return circuit without overloading) if cable is used in DC system, rated voltage between conductors should be not more than 1.5 times of rated A.C value, if it is used in DC system of single-phase grounding, it should be multiplied by 0.5 coefficient values.

### Temperature Range

Ambient temperature: -40℃ to +90℃

Max working temperature of conductor: 120℃; working temperature of cable should not exceed 90℃, the temperature index of insulation and sheath is 120℃, The temperature of 5 seconds short circuit is 200℃ according to EN60216-1 standard. The expected working life is 25 years.

### Cable Type and Specification

### Cable Dimension Parameter

## 五、电缆主要技术参数

- 20℃时导体最大直流电阻值应满足GB/T3956标准中5类导体的规定;
- 交流耐电压试验: 6.5KV/5min不击穿。

## Main Technical Parameter

Max. conductor DC resistance at 20℃ shall meet the requirement of class 5 conductor stipulated in GB/T3956 standard.  
Cable should endure AC voltage withstand test: 6.5KV/5min without puncture.

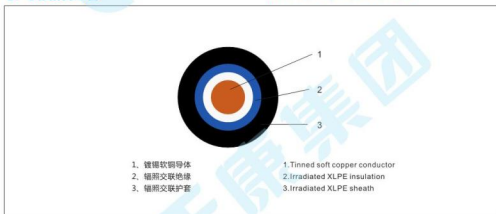
## 六、电缆载流量

## Current Carrying Capacity of Cable

标称截面 Normal cross section area	安装种类 Type of Installation		
	单芯电缆空气中自由敷设 ( A ) To be laid in the air of single core cable	单芯电缆敷设在设备表面 ( A ) Single core cable to be laid on the surface of equipment	在设备表面相邻敷设 ( A ) Cable placing nearby the surface of equipment
1.5	30	29	24
2.5	41	39	33
4	55	52	44
6	70	67	57
10	98	93	79
16	132	125	107
25	176	167	142
35	218	207	176

## 七、电缆结构示意图

## The Sketch Map of Cable Structure



# 风力发电用电缆

## Wind power cable

本产品适用于风力发电设备中叶轮机及固定安装塔类或其他类似场合的额定电压1.8/3kV及以下风力发电系统或类似的系统耐扭曲软电缆。

Flexing cable is used in wind turbine and fixed erection installation towers with rated voltage 1.8/3kV and below wind turbine system or similar system.

### 一、生产执行标准

TICW1-2009.

### Executive Standard

TICW1-2009.

### 二、使用条件

1. 电缆的额定电压U<sub>0</sub>/U分别为：450/750V、0.6/1kV、1.8/3kV；
2. 正常运行时，导体最高工作温度（电缆额定工作温度）分别为：电压等级450/750V电缆：70℃；电压等级0.6/1kV、1.8/3kV电缆：90℃；
3. 电缆的最小弯曲半径为电缆直径的6倍；
4. 电缆适应的最低环境温度，普通型：-25℃；耐寒型：-40℃；耐严寒型：-55℃。

### Operational performance

1. Rated Voltage U<sub>0</sub>/U:450/750V, 0.6/1kV, 1.8/3kV.
2. Max. temperature of cable conductor during normal operating condition (cable rated working temperature): 70°C for cable with voltage grade 450/750V, and 90°C for cable with voltage grade 0.6/1kV, 1.8/3kV.
3. Min bending radius of cable is 6 times that of cable diameter.
4. Lowest environment temperature: -25°C for common type cable, -40°C for cold-resistant type cable, and -50°C for bitter cold resistant type cable.

### 三、产品型号中和字母代表意义

风力发电用电缆系列代号 ..... FD  
阻燃C类型 ..... ZC (低烟无卤要求正在考虑中)  
铜导体 ..... (T)省略  
乙丙橡胶绝缘或其他相当的合成弹性体绝缘 ..... E  
硅橡胶或其相当的混合物绝缘 ..... G  
硅橡胶或其相当的混合物护套 ..... G  
聚氨酯弹性体护套 (TPU) ..... U  
氯磺化聚乙烯橡胶或其他相当的合成弹性体护套 ..... H  
氟丁橡胶或其他相当的合成弹性体护套 ..... F  
热塑性弹性体护套 ..... S

### Code Meaning in specification

Wind power cable series code ..... FD  
Flame retardant category C ..... ZC  
Copper conductor ..... (T)omitted  
Ethylene propylene rubber insulation or equaled synthetic elastomer ..... E  
Silicone rubber or its equivalent mixture insulation ..... G  
Silicon rubber or equaled compound sheath ..... G  
polyurethane elastomer sheath (TPU) ..... U  
Chlorosulfonated polyethylene rubber or equaled synthetic elastomer sheath ..... H  
Chloroprene rubber or equaled synthetic elastomer sheath ..... F  
TPE sheath ..... S

### 四、电缆常用型号名称

### Specification

型号 Type	额定电压 V Rated voltage	名称 Description
FDEF-25(40)	450/750V	铜芯乙丙橡胶绝缘氯丁橡胶护套风力发电用(耐寒)耐扭曲软电缆 Copper core EPR insulation chloroprene rubber sheath, wind power generation (cold resistant) resistance to distortion soft cable
FDEF-25(40)	450/750V	铜芯乙丙橡胶绝缘聚氨酯弹性体护套风力发电用(耐寒)耐扭曲软电缆 Copper core flexible cable, WITH EPR insulation TPE sheath, wind power generation (cold resistant) resistance to distortion
FDGG-40(55)	0.6/1KV 1.8/3KV	铜芯硅橡胶绝缘硅橡胶护套风力发电用耐寒(耐严寒)耐扭曲软电缆 Copper core flexible cable, WITH Silicone Rubber insulation and sheath, used in wind power generation, resistance to distortion and cold (bitter cold)
FDCU-40(55)	0.6/1KV 1.8/3KV	铜芯硅橡胶绝缘聚氨酯弹性体护套风力发电用耐寒(耐严寒)耐扭曲软电缆 Copper core flexible cable, WITH Silicone Rubber insulation and TPU sheath, USED IN wind power generation, resistance to distortion and cold (bitter cold)
FDEU-40(55)	0.6/1KV 1.8/3KV	铜芯乙丙橡胶绝缘聚氨酯弹性体护套风力发电用耐寒(耐严寒)耐扭曲软电缆 Copper core flexible cable, with EPR insulation and PU sheath, used in wind power generation, resistance to distortion and cold (bitter cold)
FDEG-40(55)	0.6/1KV 1.8/3KV	铜芯乙丙橡胶绝缘硅橡胶护套风力发电用耐寒(耐严寒)耐扭曲软电缆 Copper core flexible cable, with EPR insulation and Silicone Rubber sheath, used in wind power generation, resistance to distortion and cold (bitter cold)

FDEH-25(-40)	0.6/1kV 1.8/3kV	铜芯乙丙橡皮绝缘氯磺化聚乙烯护套风力发电用耐寒耐扭曲软电缆 Copper core flexible cable, with EPR insulation and CSM sheath, used in wind power generation, resistance to distortion and cold
FDES-25(-40)	0.6/1kV 1.8/3kV	铜芯乙丙橡皮绝缘热塑性弹性体护套风力发电用(耐寒)耐扭曲软电缆 Copper core flexible cable, with EPR insulation and TPE sheath, used in wind power generation, resistance to distortion and cold (bitter cold)

注: 1) 如氯磺化聚乙烯橡皮护套电缆、氯丁橡皮护套电缆和热塑性弹性体护套电缆均通过试验温度过-40℃的全部低温试验, 其最低使用环境温度为-40℃, 相应型号为FDEH-40、FDEF-40、FDES-40;  
2) 阻燃电缆在型号前加“ZC”。

1) There have some kinds of cables that passed the low temperature test of -40℃, such as CSM sheath cable (FDEH-40), chloroprene rubber sheath cable (FDEF-40) and TPE sheath cable (FDES-40), with the lower working temperature is -40℃.  
2) Prefix "ZC" should be added to the cable type if order flame resistant cable.

## 五、电缆规格

## Specification

型号 Type	额定电压 Rated voltage	芯数 Core No.	导体标称截面积 mm <sup>2</sup> Nominal cross section area mm <sup>2</sup>
FDEF	450/750V 0.6/1kV	1	1.5~400
FDES		2	1~25
FDGG		3	1~300
FDGU		3+1	4~185
FDEU		4	1~300
FDEG	1.8/3kV	5	1~25
FDEH		1	10~400
FDES		3	10~240

## 六、技术要求

### 1 导体

1.1 导体应采用GB/T 3956规定的第5种柔软圆形导体, 导体材料应为退火软铜线, 可以不退锡或镀锡。

1.2 导体20时的直流电阻应符合GB/T3956的规定。

1.3 导体表面允许用非吸湿性带料作重叠绕包或纵包。

### 2 绝缘

2.1 绝缘材料应为表3所列的挤包固体介质的一种, 绝缘机械物理性能应符合附录A中表A.1的规定。

### 绝缘混合物料

绝缘混合物料 Insulation compound	代号 Code	导体最高温度 The Max. temperature of conductor	
		正常运行时 Normal operation	短路时 (最长持续5s) Short circuit (the longest lasting time is 5S)
70℃乙丙橡胶混合物或其他相当的合成弹性体 70℃ EPR compound or equivalent synthetic elastomer	IE4	70	140
90℃乙丙橡胶混合物或其他相当的合成弹性体 90℃ EPR compound or equivalent synthetic elastomer	EPR	90	250
硅橡胶混合物或其他相当的合成弹性体 Silicon rubber compound or equivalent synthetic elastomer	G	90	250

2.2 绝缘厚度的标称值应符合表4的规定。绝缘厚度的平均值应不小于标称值, 绝缘最薄处厚度应不小于标称值的90%~0.1mm。

## Technical requirement

### Conductor

Conductor adopts class 5 soft circle annealed (tinned) copper wire according to GB/T 3956.

DC resistance of conductor at 20 °C should confirm with GB/T 3956.

Conductor surface allows moisture resistant material overlap or longitudinal wrap.

### Insulation

Insulated material should be one of extruded solid dielectrics in table 3. Mechanical and physical character should confirm with requirement table A. 1.in appendix A

### Insulation compound

Normal thickness of insulation should confirm with table 4, average thickness of insulation should be no less than nominal value, the thinnest point should be no less than 90%~0.1mm of nominal value.

### 绝缘标称厚度

### Nominal thickness of insulation

导体标称截面积 mm <sup>2</sup> Nominal cross section area of conductor	绝缘厚度标称值 mm Nominal thickness of insulation		导体标称截面积 mm <sup>2</sup> Nominal cross section area of conductor	绝缘厚度标称值 mm Nominal thickness of insulation		导体标称截面积 mm <sup>2</sup> Nominal cross section area of conductor	绝缘厚度标称值 mm Nominal thickness of insulation	
	450/750v 0.6/1kV	1.8/3kV		450/750v 0.6/1kV	1.8/3kV		450/750v 0.6/1kV	1.8/3kV
1	0.8	-	16	1.2	2.1	120	1.8	2.4
1.5	0.8	-	25	1.4	2.2	150	2.0	2.6
2.5	0.9	-	35	1.4	2.2	185	2.2	2.6
4	1.0	-	50	1.6	2.2	240	2.4	2.8
6	1.0	-	70	1.6	2.2	300	2.6	2.8
10	1.2	2.1	95	1.8	2.4	400	2.8	3.0

2.3 绝缘应紧密挤包在导体上，断面无目力可见的气泡和杂质，外观圆整且容易与导体剥离。

Conductor should be closely wrapped with extruded insulation. Besides there is no visible bubble and impurities, it looks round, even and easily strip.

2.4 绝缘线芯应按GB/T3048的规定经受表5规定的工频火花试验作为中间检查。

Core should be tested by power frequency sparking testing meeting the standard of GB/T3048 in table 5.

### 火花试验电压

### Sparking test

绝缘厚度标称值 mm Nominal thickness of insulation	试验电压 kV Testing voltage	绝缘厚度标称值 mm Nominal thickness of insulation	试验电压 kV Testing voltage
0.5 < δ ≤ 1.0	6	2.0 < δ ≤ 2.5	20
1.0 < δ ≤ 1.5	10	2.5 < δ	25
1.5 < δ ≤ 2.0	15	/	/

### 2.5 1芯-5芯电缆绝缘线芯的识别

2.5.1 一般要求电缆绝缘线芯应采用颜色或其它合适的办法进行识别。如客户无特殊要求，允许采用数字编码识别。除绿/黄组合色外，电缆的每一线芯应只用一种颜色。任何多芯电缆均不应使用不是组合色用的绿色和黄色。

### 2.5 Identification of 1 core to 5 core Requirement

2.5.1 Usually we distinguish insulated Conductors with different color or other proper methods, if the client has no requirement, we use number code. One Insulated Conductors use one color except green/yellow. Multi-core cable should avoid green or yellow which is not used in the Combination color.

### 3 护套

### 3. Sheath

3.1 护套材料应为表6所列的挤包固体介质的一种。护套材料应与绝缘材料的工作温度等级相适应，多芯电缆护套应与绝缘相粘连。护套机械物理性能应符合附录A中表A.2的规定。

3.1 Sheath material should be one of the extruded solid dielectrics in table 6. Working temperature of sheath material should match with that of insulation, sheath of multi-core cable cannot adhere to the insulation.

Sheath mechanical performance should meeting the requirement of table A2 in appendix A

### 护套混配料

### Sheathing compound

护套混配料 Sheathing compound	代号 Code	长期允许工作温度 Long-term working temperature
氯丁橡胶混合物或其他相当的合成弹性体 Chloroprene rubber compound or equivalent synthetic elastomer	SE4	70
热塑性弹性体 TPE	TPV-70 TPV-90	70 90
氯磺化聚乙烯橡胶混合物或其他相当的合成弹性体 Chlorosulfonated polyethylene rubber compound or equivalent synthetic elastomer	SH	90
硅橡胶混合物或其他相当的合成弹性体 Silicon rubber compound or equivalent synthetic elastomer	G	90
聚氨酯弹性体 TPU	TPU	90

4.2 电缆护套厚度的标称值应符合表7的规定。护套厚度的平均值应不小于标称值，其最薄处厚度应不小于标称值的85%-0.1mm。

Normal thickness of cable sheath should confirm the requirement in table 7, average thickness should be no less than nominal thickness, the thinnest point should be no less than 85% -0.1mm of nominal thickness.

4.3 电缆外径应符合表7的规定。护套表面光滑、圆整。色泽基本一致，断面应无目力可见的气泡和杂质。

Outer diameter should confirm the requirement in table 7, smooth, round, consistent surface, no visible bubble and impurities.

电缆尺寸

CABLE SIZE

芯数及导体 标称截面积 mm <sup>2</sup> Core No. *nominal cross section area	护套厚度标称值 mm Nominal thickness of sheath				平均外径 mm Average Outer diameter							
	450/750V, 0.6/1kV		1.8/3kV		450/750V, 0.6/1kV				1.8/3kV			
	SE4 SH TPV G	TPU	SE4 SH TPV G	TPU	SE4, SH, TPV, G护套 SE4, SH, TPV, G sheath		TPU护套 TPU sheath		SE4, TPV, SH, G护套 SE4, TPV, SH, Gsheath		TPU护套 TPU sheath	
					下限 Lower limit	上限 Upper limit	下限 Lower limit	上限 Upper limit	下限 Lower limit	上限 Upper limit	下限 Lower limit	上限 Upper limit
1*1.5	1.4	0.9	-	-	5.7	7.1	4.8	5.9	-	-	-	--
1*2.5	1.4	0.9	-	-	6.3	7.9	5.4	6.7	-	-	-	--
1*4	1.5	1.0	-	-	7.2	9.0	6.3	7.8	-	-	-	--
1*6	1.6	1.0	-	-	7.9	9.8	6.7	8.4	-	-	-	--
1*10	1.8	1.2	1.8	1.2	9.5	11.9	8.3	10.5	11.3	13.7	10.1	12.3
1*16	1.9	1.2	1.9	1.2	10.8	13.4	9.5	11.7	12.6	15.2	11.3	13.5
1*25	2.0	1.3	2.0	1.3	12.7	15.8	11.4	14.1	14.3	17.4	13.0	15.6
1*35	2.2	1.4	2.2	1.4	14.3	17.9	12.7	16.0	15.9	19.5	14.3	17.5
1*50	2.4	1.5	2.4	1.5	16.5	20.6	14.8	18.4	17.7	21.8	16.0	19.6
1*70	2.6	1.6	2.6	1.6	18.6	23.3	16.6	20.9	19.8	24.5	17.8	22.1
1*95	2.8	1.8	2.8	1.8	20.8	26.0	18.8	23.6	22.0	27.2	20.0	24.8
1*120	3.0	2.0	3.0	2.0	22.8	28.6	20.8	26.3	24.0	29.8	22.0	27.4
1*150	3.2	2.1	3.2	2.1	25.2	31.4	23.1	28.9	26.4	32.6	24.3	30.0
1*185	3.4	2.2	3.4	2.2	27.6	34.4	25.2	31.7	28.4	35.2	26.0	32.5
1*240	3.5	2.3	3.5	2.3	30.6	38.3	28.2	35.6	31.4	39.1	29.0	36.5
1*300	3.6	2.4	3.6	2.4	33.5	41.9	31.1	39.2	33.9	42.3	31.5	39.5
1*400	3.8	2.5	3.8	2.5	37.4	46.8	34.9	43.8	37.8	47.2	35.3	44.3
2*1.0	1.3	0.9	-	--	7.7	10.0	6.9	9.0	--	--	--	--
2*1.5	1.5	1.0	-	--	8.5	11.0	7.6	9.8	--	--	--	--
2*2.5	1.7	1.1	-	--	10.2	13.1	9.0	11.6	--	--	--	--
2*4	1.8	1.2	-	--	11.8	15.1	10.6	13.7	--	--	--	--
2*6	2.0	1.3	-	--	13.1	16.8	11.8	15.1	--	--	--	--



(续)

Sequel

芯数及导体标称截面积 mm <sup>2</sup> Core number & Nominal cross section area	护套厚度标称值 mm Nominal thickness of sheath				平均外径 mm Average Outer diameter							
	450/750V 0.6/1kV		1.8/3kV		450/750V, 0.6/1kV				1.8/3kV			
	SE SH TPV G	TPU	SE4 SH TPV G	TPU	SE4, SH, TPV, G护套 SE4, SH, TPV, G sheath		TPU护套 TPU sheath		SE4, TPV, SH, G护套 SE4, TPV, SH, G sheath		TPU护套 TPU sheath	
					下限 lower limit	上限 Upper limit	下限 Lower limit	上限 Upper limit	下限 Lower limit	上限 Upper limit	下限 Lower limit	上限 Upper limit
2*10	3.1	2.0	-	-	17.7	22.6	15.6	19.9	-	-	-	-
2*16	3.3	2.1	-	-	20.2	25.7	17.9	22.8	-	-	-	-
2*25	3.6	2.3	-	-	24.3	30.7	21.8	27.6	-	-	-	-
3*1.0	1.4	0.9	-	-	8.3	10.7	7.4	9.5	-	-	-	-
3*1.5	1.6	1.0	-	-	9.2	11.9	8.0	10.4	-	-	-	-
3*2.5	1.8	1.1	-	-	10.9	14.0	9.6	12.4	-	-	-	-
3*4	1.9	1.2	-	-	12.7	16.2	11.3	14.5	-	-	-	-
3*6	2.1	1.4	-	-	14.1	18.0	12.8	16.3	-	-	-	-
3*10	3.3	2.1	3.3	2.1	19.1	24.2	16.8	21.4	23.0	28.1	20.6	25.2
3*16	3.5	2.3	3.5	2.3	21.8	27.6	19.5	24.7	25.7	31.5	23.3	28.6
3*25	3.8	2.5	3.8	2.5	26.1	33.0	23.6	29.9	29.6	36.5	27.1	33.5
3*35	4.1	2.7	4.1	2.7	29.3	37.1	26.5	33.8	32.8	40.6	30	37.5
3*50	4.5	2.9	4.5	2.9	34.1	42.9	30.9	39.2	36.7	45.5	33.5	42.0
3*70	4.8	3.1	4.8	3.1	38.4	48.3	35.1	44.0	41.0	50.9	37.7	47.2
3*95	5.3	3.4	5.3	3.4	43.3	54.0	39.6	49.7	45.9	56.6	42.2	52.5
3*120	5.6	3.6	5.6	3.6	47.4	60.0	43.4	55.5	50.0	62.6	46	58.3
3*150	6.0	3.8	6.0	3.8	52.0	66.0	47.6	61.1	54.6	68.6	50.2	63.9
3*185	6.4	4.0	6.4	4.0	57.0	72.0	52.2	66.7	58.7	73.7	53.9	68.8
3*240	7.1	4.5	7.1	4.5	65.0	82.0	59.8	76.2	66.7	83.7	54.6	78.2
3*300	7.7	4.8	-	-	72.0	90.0	66.3	83.6	-	-	-	-
3*4+1*2.5	2.0	1.3	-	-	14.0	17.9	12.7	16.3	-	-	-	-
3*6+1*4	2.3	1.5	-	-	15.7	15.7	14.1	18.1	-	-	-	-

3*10-1*10	3.4	2.2	-	-	20.9	26.5	18.5	23.8	-	-	-	-
3*16-1*10	3.6	2.4	-	-	23.5	29.6	21.1	26.8	-	-	-	-
3*25-1*16	4.0	2.6	-	-	27.9	35.6	25.1	32.4	-	-	-	-
3*35-1*16	4.3	2.8	-	-	31.0	40.1	28.1	36.6	-	-	-	-
3*50-1*25	4.8	3.1	-	-	35.7	46.0	32.4	42.1	-	-	-	-
3*70-1*35	5.0	3.2	-	-	40.7	52.0	37.1	47.9	-	-	-	-
3*95-1*50	5.5	3.5	-	-	46.4	59.0	42.4	54.5	-	-	-	-
3*120-1*70	5.8	3.7	-	-	50.0	64.0	45.9	59.3	-	-	-	-
3*150-1*70	6.3	4.0	-	-	55.0	70.0	50.5	64.9	-	-	-	-
3*185-1*95	6.8	4.3	-	-	60.0	76.0	55.0	70.5	-	-	-	-
4*1	1.5	1.0	-	-	9.0	11.9	8.2	10.7	-	-	-	-
4*1.5	1.7	1.1	-	-	10.2	13.1	9.0	11.6	-	-	-	-
4*2.5	1.9	1.2	-	-	12.1	15.5	10.7	13.8	-	-	-	-
4*4	2.0	1.3	-	-	14.0	17.9	12.7	16.2	-	-	-	-
4*6	2.3	1.5	-	-	15.7	20.0	14.2	18.1	-	-	-	-
4*10	3.4	2.2	-	-	20.9	26.5	18.6	23.6	-	-	-	-
4*16	3.6	2.4	-	-	23.8	30.1	21.3	27.0	-	-	-	-
4*25	4.1	2.7	-	-	28.9	36.6	26.1	33.2	-	-	-	-
4*35	4.4	2.8	-	-	32.5	41.1	29.3	37.2	-	-	-	-
4*50	4.8	3.1	-	-	37.7	47.5	34.4	43.5	-	-	-	-
4*70	5.2	3.3	-	-	42.7	54.0	39.0	49.5	-	-	-	-
4*95	5.9	3.7	-	-	48.4	61.0	44.0	55.9	-	-	-	-
4*120	6.0	3.8	-	-	53.0	66.0	48.6	60.9	-	-	-	-
4*120	6.5	4.1	-	-	58.0	73.0	53.2	67.5	-	-	-	-
4*185	7.0	4.4	-	-	64.0	80.0	58.8	74.3	-	-	-	-
4*240	7.7	4.8	-	-	72.0	91.0	66.3	84.7	-	-	-	-
4*300	8.4	5.2	-	-	80.0	101.0	73.6	94.0	-	-	-	-
5*1.0	1.6	1.0	-	-	10.2	13.1	9.0	11.7	-	-	-	-
5*1.5	2.0	1.1	-	-	11.2	14.4	9.8	12.8	-	-	-	-
5*2.5	2.2	1.3	-	-	13.3	17.0	11.9	15.5	-	-	-	-
5*4	2.5	1.4	-	-	15.6	19.9	14.1	18.2	-	-	-	-

(续)

Sequel

芯数及导体 标称截面积 mm <sup>2</sup> Core number & Nominal cross section area	护套厚度标称值 mm Nominal thickness of sheath				平均外径 mm Average Outer diameter							
	450/750V, 0.6/1kV		1.8/3kV		450/750V, 0.6/1kV				1.8/3kV			
	SE4, SH, TPV, G	TPU	SE4, SH, TPV, G	TPU	SE4, SH, TPV, G 护套 SE4, SH, TPV, G		TPU护套 TPU Sheath		SE4, TPV, SH, G 护套 Se4, TPV, SH,		TPU护套 TPU sheath	
					下限 Lower limit	上限 Upper limit	下限 Lower limit	上限 Upper limit	下限 Lower limit	上限 Upper limit	下限 Lower limit	上限 Upper limit
5*6	2.5	1.6	-	-	17.5	22.2	15.7	20.2	-	-	-	-
5*10	3.6	2.3	-	-	22.9	29.1	20.4	26.0	-	-	-	-
5*16	3.9	2.5	-	-	26.4	33.3	23.7	30.2	-	-	-	-
5*25	4.4	2.8	-	-	32.0	40.4	28.8	36.8	-	-	-	-
6*1.5	2.5	1.6	-	-	13.4	17.2	11.6	15.4	-	-	-	-
12*1.5	2.9	1.9	-	-	17.6	22.4	15.6	20.4	-	-	-	-
18*1.5	3.2	2.1	-	-	20.7	26.3	18.5	24.1	-	-	-	-
24*1.5	3.5	2.3	-	-	24.3	30.7	21.9	28.3	-	-	-	-
36*1.5	3.8	2.5	-	-	27.8	35.2	25.2	32.6	-	-	-	-
6*2.5	2.7	1.8	-	-	15.7	20.0	13.9	18.2	-	-	-	-
12*2.5	3.1	2.1	-	-	20.6	26.2	18.6	24.2	-	-	-	-
18*2.5	3.5	2.3	-	-	24.4	30.9	22.0	28.5	-	-	-	-
24*2.5	3.9	2.6	-	-	28.8	36.4	26.2	33.8	-	-	-	-
36*2.5	4.3	2.9	-	-	33.2	41.8	30.4	39.0	-	-	-	-
6*4	2.9	1.9	-	-	18.2	23.2	16.2	21.2	-	-	-	-
12*4	3.5	2.3	-	-	24.4	30.9	22.0	28.5	-	-	-	-
18*4	3.9	2.5	-	-	28.8	36.4	26.0	33.6	-	-	-	-

注：  
1) 5芯以上电缆优选芯数：6、12、18、24和36；  
2) 5芯以上非优选芯数电缆的护套厚度的标称值（Tg）根据GB/T12706-1附录A的假定直径法使用下列公式计算得出：  
SE4, TPV, SH, G 护套：Tg=0.11D+1.5 (mm)  
TPU护套：Tg=0.07D+1.0 (mm)  
式中D为成缆芯芯的假定直径。  
10mm<sup>2</sup>及以下截面的5芯以上多芯电缆的护套厚度的标称值也可以由上面公式计算得出

Note：  
1) Preferred core number of over 5 cores cable：6, 12, 18, 24, 36  
2) According to appendix A of GB/T12706-1, please follow below format with assumed diameter to calculate sheath nominal thickness value (Tg) of non-recommend over 5 core cable.  
SE4, TPV, SH, G sheath: Tg=0.11D+1.5 (mm)  
TPU Sheath: Tg=0.07D+1.0 (mm)  
D is assumed outer diameter of core  
Nominal sheath thickness of 10mm<sup>2</sup> and below cable with more than 5 cores can be calculated by above format.

护套的优选颜色为黑色

Preferred color of sheath is black

电缆结构示意图 Cable structure



# AF-200、AF-260氟塑料安装电线

## AF-200 & AF-260 Fluoroplastics Installation Wire

本产品适用于耐低温导线、耐高温加热导线及阻燃耐老化导线也可用于空调机、微波炉、电子消毒柜、电子热水瓶、电暖器、电烤箱、电炒锅、灯具灯饰等内部布线。

It is used as low temperature resistant wire, high temperature resistant heating wire or flame retardant and aging resistant wire. It is used as inner wiring in air conditioner, microwave stove, electronic sterilizer, electric water heater, electrical heating machine, electronic oven, electrical frying pan and lightings etc.

### 一、生产执行标准

参照GJB773A标准。

### Executive standard

GJB773. standard.

### 二、使用条件

1. 电线导体最高工作温度为20 0°C和260°C，最低环境温度度为-60°C；
2. 额定电压：300V/500V。

### Operational performance

1. Max working temperature of wire conductor is 200°C& 260°C. Min. environment temperature is -60°C.
2. Rated voltage: 300/500V.

### 三、技术特性

1. 电线具有优良的耐腐蚀性能，几乎不溶于任何有机溶剂，可抗油、强酸、强碱、强氧化剂；
2. 具有优良的电绝缘性能，耐高电压、高频损耗小，不吸湿，绝缘电阻大；
3. 具有优良的不燃、耐老化性能，氧指数≥70，使用寿命长；
4. 也可向用户提供屏蔽型安装线。

### Technical Performance

1. It has good feature of corrosion resistant, and it is almost insoluble in any organic solvent. It is resistant to grease, strong acid and strong alkali.
2. It has good electric insulation character, and is resistant to high voltage, with small H.F. loss, without absorbing moisture, and with high insulation resistance.
3. It has good performance of resisting fire and aging, oxygen index≥70, with long lifetime.
4. We also produce shielding installation wire according to the requirement of customer.

### 四、技术参数

### Main Technical Parameter

标称截面 mm <sup>2</sup> Nominal cross section area	电线最大外径 mm Max. O.D of cable	载流量 A Current-loading capacity	20°C导体最大电阻 Ω/km Max. resistance of conductor at 20°C
0.3	1.55	2.5	71.2
0.5	1.65	6	40.1
0.75	1.86	10	22.2
1.0	2.10	14	20.0
1.5	2.52	22	13.7
2.0	2.75	26	8.86
2.5	2.92	30	8.21
3.5	3.58	37	6.1
4.0	3.76	40	5.09
5.5	4.05	50	4.5
6.0	4.58	55	3.39
8.0	5.15	65	2.35
10.0	5.58	75	1.95
16.0	5.86	82	1.21

### 五、交货长度

根据双方协议允许任何长度交货，计量误差允许不超过±0.5%。

### Delivery Length

Delivery length of cable depends on both agreements with length error allowance of ±0.5%.

# AF-125氟塑料安装电线

## AF-125 Fluoroplastics Installation Wire

本产品适用于耐低温导线、耐高温加热导线及阻燃耐老化导线也可用于空调机、微波炉、电子消毒柜、灯具灯饰等内部布线，建筑行业可作为500V及以下的照明及动力机械的阻燃耐老化导线。

### 一、生产执行标准

参照GJB773A.

### 二、使用条件

- 1、电线导体最高工作温度为125℃，最低环境温度为-50℃；
- 2、额定电压：300/500V。

### 三、技术特性

- 1、电线具有优良的耐腐蚀性能，几乎不溶于任何有机溶剂，可抗油、强酸、强碱、强氧化剂；
- 2、具有优良的电绝缘性能，耐高电压、高频损耗小，不吸湿，绝缘电阻大；
- 3、具有优良的阻燃、耐老化性能，氧指数≥43，使用寿命长。

### 四、技术参数

标称截面 mm <sup>2</sup> Nominal cross section area	电线最大外径 mm Max. O.D of wire	载流量 A Current-loading capacity	20℃导体最大电阻 Ω/km Max. resistance of conductor at 20℃
0.3	1.62	2.5	71.2
0.5	1.75	6	40.1
0.75	1.96	10	22.2
1.0	2.20	14	20.0
1.5	2.62	22	13.7
2.0	2.85	26	8.86
2.5	3.00	30	8.21
3.5	3.68	37	6.1
4.0	3.86	40	5.09
5.5	4.10	50	4.5
6.0	4.68	55	3.39
8.0	5.25	65	2.35
10.0	5.68	75	1.95
16.0	5.96	82	1.21

### 五、交货长度

根据双方协议允许任何长度交货，计量误差允许不超过±0.5%。

It is used as low temperature resistant wire, high temperature resistant heating wire or flame retardant and aging resistant wire. It is used for inner wiring in air conditioner, microwave stove, electronic sterilizer, lighting etc or as flame retardant and aging resistant wire for lighting and engine of voltage 500 V in construction industry.

### Executive standard

GJB773A.

### Operational performance

1. Max working temperature of wire conductor is 125°C. Min. environment temperature is -50°C.
2. Rated voltage: 300/500V

### Technical Performance

1. It has good feature of corrosion resistant, and it is almost insoluble in any organic solvent. It is resistant to grease, strong acid and strong alkali.
2. It has good electric insulation character, and is resistant to high voltage, with small H.F. loss, without absorbing moisture, and with high insulation resistance.
3. It has good performance of resisting fire and aging, oxygen index≥43, with long lifetime.

### Main Technical Parameter

### Delivery Length

Delivery length of cable depends on both agreements with length error allowance of ±0.5%.

# 180°C电机绕组引接软电缆

## 180°C Soft Cable for Motor Winding Connection

本产品适用于连续运行导体温度为180°C的电机绕组作引接线用。

It is used as connection cable of motor with continual working temperature of 180°C.

### 一、生产执行标准

JB/T 6213.4-2006.

Executive standard

JB/T 6213.4-2006.

### 二、使用条件

1. 连续运行导体最高温度为180°C；
2. 电缆(电线)的额定电压为500V、1000V；
3. 敷设时的允许弯曲半径应不小于电缆(电线)外径的4倍。

Operational performance

Max. temperature of conductor for continual working is 180°C.  
Rated voltage of cable/wire is 500V, 1000V.  
Bending radius for installation is no less than 4 times that of cable outer diameter.

### 三、型号及名称如表1

Type & Description listed in Table 1

Table 1

型号 Type	名称 Description
JG	铜芯硅橡胶绝缘电机绕组引接电缆(电线) Motor winding connection cable(wire) with cu core, silica rubber insulation

### 四、电缆(电线)的规格如表2

Specification of cable(wire) listed in table 2

Table 2

型号 Type	额定电压 V Rated voltage	芯数 Core No.	标称截面 mm <sup>2</sup> Nominal cross section area
JG	500、1000	1	0.75-95

### 五、电缆(电线)的参考外径如表3

Cable outer diameter for reference listed in table 3

Table 3

标称截面 mm <sup>2</sup> Nominal cross section area	平均外径上限 mm Max.Average O.D		标称截面 mm <sup>2</sup> Nominal cross section area	平均外径上限 mm Max.Average O.D
	500V	1000V		
0.75	3.5	4.7	16	10.5
1.0	3.7	4.9	25	12.6
1.5	4.0	5.2	35	14.6
2.5	4.6	5.6	50	17.6
4	5.4	6.3	70	19.3
6	6.5	7.5	95	21.9
10	7.9	8.5	/	/

### 五、交货长度

根据双方协议允许任何长度交货，  
计量误差允许不超过±0.5%。

Delivery Length

Delivery length of cable depends on both agreements  
with length error allowance of ±0.5%.

# 电缆分配系统用物理发泡聚乙烯绝缘同轴电缆

## Coaxial Cable with Physically Foamed PE Insulation for Cable Distribution System

本产品适用于1GHz以下闭路电视系统、共用天线电视系统作分支线和用户线以及其它电子装置。电缆分配系统用物理发泡聚乙烯绝缘同轴电缆比实芯聚乙烯、化学发泡聚乙烯和纵孔聚乙烯绝缘电视电缆具有更优良的高频性能，它有衰减低、一致性好、不易受潮等突出优点，为此在国际、国内市场已获得广泛使用。

This product is used as a branch line and a user line. It is suitable for closed-circuit television system, common antenna TV system, and other electronic devices. ( under 1GHz ) Coaxial cable with physically foamed PE insulation for cable distribution system has good features of high frequency performance, low attenuation, good consistency and humidity resistance etc compared with TV cable with solid core PE, chemically foamed PE and cell PE insulation. Now, it is widely used in domestic and international market.

### 一、生产执行标准

SJ/T11138-1-7-1997.

### Executive standard

SJ/T11138-1-7-1997.

### 二、使用特性

环境条件：-25℃~+70℃ ( PVC护套 ) ；  
-40℃~+70℃ ( PE护套 ) ；  
相对湿度：当温度为40±2℃，为90%~95%。

### Operational performance

Environment temperature: -25℃~+70℃ ( PVC sheath )  
-40℃~+70℃ ( PE sheath )  
Relative humidity is 90%~95% under the temperature of 40±2℃.

### 三、常用型号及名称

型号 Type	名称 Name
SYWV-75-5 SYWV-75-7 SYWV-75-9	电缆分配系统用物理发泡聚乙烯绝缘聚氯乙烯护套同轴电缆 Coaxial cable with physically foamed PE insulation, PVC sheath for cable distribution system
SYWV-75-7 SYWV-75-9	电缆分配系统用物理发泡聚乙烯绝缘聚乙烯护套同轴电缆 Coaxial cable with physically foamed PE insulation and PE sheath for cable distribution system

### Common Type and Name

### 四、电缆的结构尺寸

### Structure Dimension of Cable

型号 Type	内导体 mm Inner conductor	绝缘外径 mm Insulation OD	外导体 mm Outer conductor	护套 mm Sheath	单位重量 kg/km Unit weight
SYWV-75-5	1.0±0.02	4.8±0.2	≤5.8	≤7.5	46
SYWV-75-7 SYWV-75-7	1.66±0.02	7.25±0.25	≤8.3	≤10.6	85 (PVC) 75 (PE)
SYWV-75-9 SYWV-75-9	2.15±0.03	9.00±0.25	≤10.3	≤12.6	120 (PVC) 110 (PE)

备注：  
1. 内导体为单根圆铜线或铜包铝线；  
2. 绝缘为物理发泡聚乙烯；  
3. 外导体为铝塑复合膜和镀锡圆铜线（或铝合金线）编织双层屏蔽形式；  
4. 护套为聚氯乙烯或聚乙烯。

Note:  
1. Inner conductor consists of single round copper wire OR copper-clad aluminum wire  
2. Insulation material is physically foamed PE.  
3. Outer conductor consists of aluminum-plastic compound file and tinned round copper wire(aluminum-alloy wire) braid dual shielding.  
4. Sheath material is PVC or PE.

## 五、电气性能

## Electric Performance

试验项目 Teating item	试验条件 Teat condition	单位 Unit	技术要求 Technical requirements		
			SYWV-75-5	SYWV-75-7 SYWV-75-7	SYWV-75-9 SYWV-75-9
绝缘电阻 Insulated resistance	500V DC(20°C)	MΩ.km	≥5000	≥5000	≥5000
护套介电强度 Sheath dielectric strength 浸水试验 Immersion test in water 火花试验 Spark test	40Hz~60Hz	KV	2.0 3.0	3.0 5.0	5.0 8.0
特性阻抗 Characteristic impedance	200MHz	Ω	72.0-78.0	72.5-77.5	72.5-77.5
衰减常数 20°C Attenuation coefficient	50MHz 200MHz 550MHz 800MHz	dB/100m	<4.8 <9.7 <16.8 <20.3	<3.2 <6.4 <10.7 <13.3	<2.4 <5.0 <8.5 <10.4
回波损耗 Return-loss	VHF UHF	dB dB	<20.0 <18.0	<20.0 <18.0	<20.0 <18.0
屏蔽衰减 Shielding attenuation	50MHz 200MHz 800MHz	dB dB dB	60 70 70	60 70 70	60 70 70



# 实芯聚乙烯绝缘柔软射频电缆

## Solid-polyethylene insulated flexible radio-frequency cables

适用于无线电通讯广播设备和有关无线电电子设备中传输射频信号。

It is used to transmit radio frequency signal for radio communication broadcasting equipments and concerned electric devices.

### 一、生产执行标准

GB/T14864-2013.

Executive standard

GB/T14864-2013.

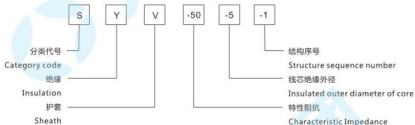
### 二、型号编制及字母代号含义

射频同轴电缆.....	S
铜导体.....	T(可省略)
聚乙烯绝缘.....	Y
聚氯乙烯护套.....	V

Type Compiling and Code Meaning

RF coaxial cable.....	S
Copper conductor.....	T (omitted)
PE solid insulation.....	Y
PVC sheath.....	V

型号组成表示方法 ITEM NO-forming Method



### 三、使用条件

使用温度：-30℃~70℃。

安装敷设温度不低于-15℃。

允许最小弯曲半径：室内使用时不少于5倍电缆外径，室外使用不小于10倍电缆外径。

### Working Condition

Working temperature: -30℃~70℃

Installation is not lower than -15℃.

Min. bending radius: it will be no less than 5 times that of cable outer diameter for indoor usage, and no less than 10 times for outdoor usage.

### 四、型号及名称

Type and Description

型号 Type	名称 Description
SYV	实芯聚乙烯绝缘柔软射频电缆 Solid-polyethylene insulated flexible radio-frequency cables

## 五、结构尺寸

## Specification and Size

型号规格 Type	内导体 mm Inner conductor	绝缘外径 mm Insulation outer diameter	外导体直径 mm Diameter of outer conductor			护套外径 mm Sheath OD	绝缘电阻 M $\Omega$ ·km Insulated resistance	200MHz下 衰减dB/m Attenuation under 200MHz
			内层 Inner layer	外层 Outer layer	单线直径 Diameter of single piece			
SYV-50-2-1	7/0.16	1.50±0.10	软铜线 Soft copper wire	/	0.10±0.01	2.8±0.2	≥5000	≤0.45
SYV-50-2-7	7/0.16	1.50±0.10		/	0.10±0.01	2.8±0.2		≤0.45
SYV-50-2-8	7/0.16	1.50±0.10		/	0.10±0.01	2.8±0.2		≤0.45
SYV-50-2-41	1/0.68	2.20±0.10		/	0.14±0.01	4.0±0.2		≤0.31
SYV-50-3-1	7/0.32	2.95±0.13		/	0.14±0.01	5.0±0.2		≤0.24
SYV-50-3-3	1/0.90	2.95±0.13		/	0.14±0.01	5.0±0.2		≤0.22
SYV-50-3-4	1/0.90	2.95±0.13		/	0.14±0.01	5.0±0.2		≤0.22
SYV-50-3-5	1/0.90	2.95±0.13		软铜线 Soft copper wire	0.14±0.01	5.8±0.2		≤0.22
SYV-50-3-41	1/0.90	2.95±0.13		软铜线 Soft copper wire	0.14±0.01	5.8±0.2		≤0.22
SYV-50-5-1	1/1.40	4.80±0.20		/	0.14±0.01	7.2±0.3		≤0.15
SYV-50-5-3	1/1.40	4.80±0.20		/	0.14±0.01	7.2±0.3		≤0.15
SYV-50-5-4	1/1.40	4.80±0.20		软铜线 Soft copper wire	0.14±0.01	7.9±0.3		≤0.15
SYV-50-5-41	1/1.40	4.80±0.20		软铜线 Soft copper wire	0.14±0.01	7.9±0.3		≤0.15
SYV-50-7-1	7/0.75	7.25±0.25		/	0.19±0.01	10.3±0.3		≤0.11
SYV-50-7-2	7/0.75	7.25±0.25		/	0.19±0.01	10.3±0.3		≤0.11
SYV-50-7-3	7/0.75	7.25±0.25		软铜线 Soft copper wire	0.17±0.01	11.0±0.3		≤0.11
SYV-50-7-4	7/0.75	7.25±0.15	/	0.19±0.01	10.3±0.3	≤0.62**		
SYV-50-7-6	7/0.75	7.25±0.15	软铜线 Soft copper wire	0.17±0.01	11.0±0.3	≤0.62**		
SYV-50-7-41	7/0.75	7.25±0.25	软铜线 Soft copper wire	0.17±0.01	11.0±0.3	≤0.11		
SYV-50-9-41	7/0.95	9.0±0.30	/	0.19±0.01	12.2±0.4	≤0.095		

注：SYV-50-的特性阻抗为50±2.5 $\Omega$ ，电容不大于115pF/m。Note: characteristic impedance of SYV-50- is 50±2.5 $\Omega$ . Capacitance is no more than 115pF/m.

型号规格 Type	内导体mm Inner conductor	绝缘外径mm Insulation OD	外导体直径mm Diameter of outer conductor			护套外径 mm Sheath OD	绝缘电阻 MΩ.km Insulated resistance	200MHz下 衰减dB/m Attenuation under 200MHz
	根数/直径* Pieces/diameter		内层 inner layer	外层 outer layer	单线直径 Diameter of single piece			
SYV-75-3-41	7/0.17	3.90±0.13	软铜线 Soft copper wire	/	0.14±0.01	5.0±0.25	≥5000	0.28
SYV-75-4-1	7/0.21	3.70±0.13		/	0.14±0.01	6.0±0.2		0.22
SYV-75-4-2	7/0.21	3.70±0.10		软铜线 Soft copper wire	0.14±0.01	6.7±0.2		0.95**
SYV-75-4-3	1/0.59	3.70±0.13		/	0.14±0.01	6.0±0.2		0.19
SYV-75-4-4	1/0.59	3.70±0.13		/	0.14±0.01	6.0±0.2		0.19
SYV-75-5-4	1/0.75	4.80±0.20		/	0.14±0.01	7.2±0.3		0.15
SYV-75-5-5	1/0.75	4.80±0.20		软铜线 Soft copper wire	0.14±0.01	7.9±0.3		0.15
SYV-75-5-41	1/0.75	4.80±0.20		/	0.14±0.01	7.2±0.3		0.15
SYV-75-5-42	1/0.75	4.80±0.20		软铜线 Soft copper wire	0.14±0.01	7.9±0.3		0.15
SYV-75-7-1	7/0.40	7.25±0.25		/	0.19±0.01	10.3±0.3		0.12
SYV-75-7-2	7/0.40	7.25±0.25		/	0.19±0.01	10.3±0.3		0.12
SYV-75-7-3	7/0.40	7.25±0.15		软铜线 Soft copper wire	0.17±0.01	11.0±0.3		0.60
SYV-75-7-4	1/1.15	7.25±0.15		/	0.19±0.01	10.3±0.3		0.52
SYV-75-7-8	1/1.15	7.25±0.25		/	0.19±0.01	10.3±0.3		0.10
SYV-75-7-41	7/0.40	7.25±0.25		软铜线 Soft copper wire	0.17±0.01	11.0±0.3		0.12

注：SYV-75-的特性阻抗为75±3Ω，电容不大于76pF/m。

\* 表示单线直径为近似值。

\*\* 表示频率为3000 MHz下的衰减值。

Note: Characteristic impedance of SYV-75- is 75±3Ω. Capacitance is no more than 76 pF/m.

\*: approximate value of diameter of single wire

\*\*: attenuation value under 3000 MHz

## 六、交货要求

1. 允许成圈长度为100米交货，成盘长度应不小于100米，长度误差为±0.5%；
2. 根据双方协议允许任何长度交货。

## Delivery Requirement

1. Cable length in coil is 100 meters. Cable length on drum is no less than 100 meters with length error of ±0.5%.
2. Allow any length of delivery according to the agreement between the two parties.

# 交流额定电压3kV及以下轨道交通车辆用电缆

## AC rated voltage 3kV and below for rail traffic vehicles

本产品适用于交流额定电压3kV及以下轨道交通车辆电器连接。

This cable is suitable for electrical connection of rail traffic vehicles of AC rated voltages up to and including 3kV.

### 一、生产执行标准

GB/T12528-2008.

### Production Standards

GB/T12528-2008.

### 二、使用特性

#### 1. 电缆额定电压

电缆的交流额定电压 $U_0$ 为750V、1.5kV和3kV。直流额定电压为交流额定电压的1.5倍；

2. 长期允许最高工作温度：100℃；

3. 电缆最低使用环境温度：-25℃；

4. 电缆敷设的允许弯曲半径

电缆半径(D)为20mm及以下时应不小于6D；

电缆半径(D)为20mm以上时应不小于8D。

### Operational performance

#### 1. Cable rated voltage

AC rated voltage  $U_0$  of cable is 750V, 1.5kV and 3kV, with DC is 1.5 times of the AC.

2. Maximum working temperature: 100°C.

3. Minimum environment temperature: -25°C.

4. Bending radius for installation

It is that should not be less than 6D. When the cable radius (D) is less than or equal to 20mm.

It is that should not be less than 8D, when the cable radius (D) is longer than 20mm.

### 三、产品代号及含义

1. 系列代号..... DC

2. 导体材料代号..... 省略

3. 绝缘材料代号

氯磺化聚乙烯橡胶混合物或其他相当的合成弹性体... H  
乙丙橡胶混合物..... E

4. 耐热特性代号

100℃..... 100

5. 耐油特性代号

安装在无矿物油和燃料油污染处..... 1 (可省略)

安装在受矿物油污染, 但无燃料油污染处

(耐矿物油)..... 2

安装在受矿物油污染和燃料油污染处

(耐矿物油和燃料油)..... 3

6. 型号含义

产品用型号、规格及本标准编号表示, 组成如图所示。

### Product code and meaning

1. Series code..... DC

2. Conductor material code..... Omit

3. Insulating material code

Chlorinated polyethylene rubber compound or equivalent synthetic elastomer..... H

EPR compound..... E

4. Heat characteristic code

100°C..... 100

5. Oil resistant code

Installed in the non-mineral oil and fuel oil pollution area

..... 1 (can be omitted)

Installation in mineral oil pollution area, but no fuel oil pollution. (Mineral oil resistant)..... 2

It is installed in the pollution areas of mineral oil and fuel oil. (Resistance to mineral oil and fuel oil)..... 3

6. Types of meaning

ITEM NO. forming Method



#### 四、产品名称、型号和规格

Product name, model and specification

##### 1、产品型号、名称

Product model and name

型号 Type	产品名称 Name
DCEYH3-100	耐矿物油和燃料油铜芯耐热100℃乙丙橡胶混合物绝缘氯磺化聚乙烯橡胶混合物或其他相当的合成弹性体护套轨道交通车辆用电缆 Copper core rail transit vehicle use cable, with resistance to mineral oil and fuel oil, heat resistant 100°C EPR compound insulation and CSM rubber compound or equivalent synthetic elastomer sheath.

##### 2、规格

Specifications

型号 Type	额定电压 V Rated voltage V	芯数 Core wire No.	标称截面 mm <sup>2</sup> Nominal cross-section area mm <sup>2</sup>
DCEH/3-100	750	1	0.5~300
	1500	1	1~300
	3000	1	2.5~300

#### 五、主要技术参数

Main technical parameters

##### 1、电缆导体在20℃时的直流电阻

DC resistance of cable conductor at 20°C

标称截面 mm <sup>2</sup> Nominal cross-section area mm <sup>2</sup>	20℃时导体电阻最大值 (Ω/km)			
	不镀锡 Untinned		镀锡 Tinned	
	第5类导体 Class 5 conductor	第6类导体 Class 6 conductor	第5类导体 Class 5 conductor	第6类导体 Class 6 conductor
0.5	39.0	39.0	40.1	40.1
0.75	26.0	26.0	26.7	26.7
1	19.5	19.5	20.0	20.0
1.5	13.3	13.3	13.7	13.7
2	-	-	10.0	10.0
2.5	7.98	7.98	8.21	8.21
4	4.95	4.95	5.09	5.09
6	3.30	3.30	3.39	3.39
10	1.91	1.91	1.95	1.95
16	1.21	1.21	1.24	1.24
25	0.780	0.780	0.795	0.795
35	0.554	0.554	0.565	0.565
50	0.386	0.386	0.393	0.393
70	0.272	0.272	0.277	0.277
95	0.206	0.206	0.210	0.210
120	0.161	0.161	0.164	0.164
150	0.129	0.129	0.132	0.132
185	0.106	0.106	0.108	0.108
240	0.0801	0.0801	0.0817	0.0817
300	0.0641	0.0641	0.0654	0.0654

2、电缆计算外径（供参考）

DCEH/3-100型750V耐矿物油和燃料油铜芯耐热100°C

乙丙橡胶混合物绝缘氯磺化聚乙烯橡胶混合物或其他相

当合成弹性体护套轨道交通车辆用电缆。

The calculation outer diameter of cable (for reference)

DCEH/3-100 type 750V mineral oil resistant and fuel oil resistant copper core heat-resistant at 100°C.

Copper core rail transit vehicle use cable, with EPR compound insulation and CSM rubber compound or equivalent synthetic elastomer sheath.

导体标称截面 mm <sup>2</sup> Nominal sectional area of conductor	导体规格 Conductor specification	绝缘标称厚度 mm Insulation nominal thickness	护套标称厚度 mm Sheath nominal thickness	平均外径 mm Average outside diameter	
				下限 Lower limit	上限 Upper limit
0.5	5	0.6	0.6	3.2	4.4
	6	0.6	0.6	3.2	4.4
0.75	5	0.6	0.6	3.4	4.7
	6	0.6	0.6	3.4	4.7
1.0	5	0.6	0.6	3.5	4.9
	6	0.6	0.6	3.5	4.9
1.5	5	0.6	0.6	3.7	5.4
	6	0.6	0.6	3.8	5.4
2.5	5	0.7	0.7	4.4	6.2
	6	0.7	0.7	4.4	6.2
4.0	5	0.7	0.7	5.0	6.8
	6	0.7	0.7	5.0	6.8
6.0	5	0.7	0.7	5.4	7.8
	6	0.7	0.7	5.4	7.8
10	5	0.8	0.8	7.0	9.0
	6	0.8	0.8	7.0	9.0
16	5	0.8	0.8	8.0	10.5
	6	0.8	0.8	8.0	10.5
25	5	1.0	1.0	10.0	13.0
	6	1.0	1.0	10.0	13.0
35	5	1.0	1.0	11.0	14.5
	6	1.0	1.0	11.0	14.5
50	5	1.2	1.2	13.5	17.0
	6	1.2	1.2	13.5	17.0
70	5	1.2	1.2	15.0	19.5
	6	1.2	1.2	15.0	19.5
95	5	1.4	1.4	17.5	21.5
	6	1.4	1.4	17.5	21.5
120	5	1.4	1.4	19.0	23.5
	6	1.4	1.4	19.0	23.5
150	5	1.8	1.8	22.0	28.0
	6	1.8	1.8	22.0	28.0
185	5	1.8	1.8	23.5	29.5
	6	1.8	1.8	23.5	29.5
240	5	2.2	2.2	28.0	34.0
	6	2.2	2.2	28.0	34.0
300	5	2.2	2.2	30.0	37.0
	6	2.2	2.2	30.0	37.0

DCEH/3-100型1500V耐矿物油和燃料油铜芯耐热100°C  
 乙丙橡胶混合物绝缘氯磺化聚乙烯橡胶混合物或其他相  
 当合成弹性体护套轨道交通车辆用电缆。

DCEH/3-100 type 1500V mineral oil resistant and fuel oil res-  
 istant copper core heat-resistant at 100°C.  
 Copper core rail transit vehicle use cable, with EPR compou-  
 nd insulation and CSM rubber compound or equivalent synth-  
 etic elastomer sheath.

导体标称截面 mm <sup>2</sup> Nominal sectional area of conductor	导体规格 Conductor specification	绝缘标称厚度 mm Insulation nominal thickness	护套标称厚度 mm Sheath nominal thickness	平均外径 mm Average outside diameter	
				下限 Lower limit	上限 Upper limit
1.0	5	0.8	0.8	4.3	6.0
	6	0.8	0.8	4.3	6.0
1.5	5	0.8	0.8	4.5	6.6
	6	0.8	0.8	4.6	6.6
2.5	5	0.9	0.9	5.0	7.6
	6	0.9	0.9	5.2	7.6
4.0	5	0.9	0.9	5.8	8.2
	6	0.9	0.9	5.8	8.2
6.0	5	0.9	0.9	6.4	9.0
	6	0.9	0.9	6.4	8.8
10	5	1.0	1.0	8.0	9.8
	6	1.0	1.0	7.8	9.8
16	5	1.0	1.0	8.8	11.5
	6	1.0	1.0	8.8	11.0
25	5	1.2	1.2	10.5	13.5
	6	1.2	1.2	10.5	13.5
35	5	1.2	1.2	12.0	15.0
	6	1.2	1.2	12.0	15.0
50	5	1.4	1.4	14.0	18.0
	6	1.4	1.4	14.0	18.0
70	5	1.4	1.4	16.0	20.5
	6	1.4	1.4	16.0	19.5
95	5	1.6	1.6	18.0	22.5
	6	1.6	1.6	18.5	22.5
120	5	1.6	1.6	19.5	24.5
	6	1.6	1.6	20.0	24.5
150	5	2.0	2.0	22.5	29.0
	6	2.0	2.0	22.5	28.0
185	5	2.0	2.0	24.0	30.0
	6	2.0	2.0	24.0	30.0
240	5	2.4	2.4	28.5	35.0
	6	2.4	2.4	28.5	35.0
300	5	2.4	2.4	31.0	38.0
	6	2.4	2.4	31.0	38.0

DCEH/3-100型3000V耐矿物油和燃料油铜芯耐热100℃  
乙丙橡胶混合物绝缘氯磺化聚乙烯橡胶混合物或其他相  
当合成弹性体护套轨道交通车辆用电缆

DCEH/3-100 type 3000V mineral oil resistant and fuel oil re-  
sistant copper core heat-resistant at 100°C.  
Copper core rail transit vehicle use cable, with EPR compou-  
nd insulation and CSM rubber compound or equivalent synth-  
etic elastomer sheath.

导体标称截面 mm <sup>2</sup> Nominal sectional area of conductor	导体规格 Conductor specification	绝缘标称厚度 mm Insulation nominal thickness	护套标称厚度 mm Sheath nominal thickness	平均外径 mm Average outside diameter	
				下限 Lower limit	上限 Upper limit
2.5	5	1.4	1.2	7.0	8.6
	6	1.4	1.2	7.0	8.6
4.0	5	1.4	1.2	7.4	9.2
	6	1.4	1.2	7.4	9.2
6.0	5	1.4	1.2	8.0	10.5
	6	1.4	1.2	8.0	10.5
10	5	1.6	1.2	9.4	11.5
	6	1.6	1.2	9.4	11.5
16	5	1.6	1.2	10.0	13.0
	6	1.6	1.4	10.0	12.5
25	5	1.8	1.4	12.0	15.5
	6	1.8	1.4	12.0	15.5
35	5	1.8	1.4	13.5	17.0
	6	1.8	1.8	13.5	17.0
50	5	2.0	1.8	16.0	20.0
	6	2.0	1.8	16.0	20.0
70	5	2.0	1.8	17.5	22.5
	6	2.0	1.6	18.0	22.0
95	5	2.2	1.6	20.0	24.5
	6	2.2	1.6	20.0	24.5
120	5	2.2	1.6	21.5	26.5
	6	2.2	1.6	22.0	26.5
150	5	2.6	2.2	24.5	30.5
	6	2.6	2.2	24.5	30.0
185	5	2.6	2.2	26.0	32.0
	6	2.6	2.2	26.0	32.0
240	5	3.0	2.8	30.5	37.0
	6	3.0	2.8	30.5	37.0
300	5	3.0	2.8	33.0	40.0
	6	3.0	2.8	32.5	40.0

## 六、包装

电缆应成盘或成圈交货，并卷绕整齐，妥善包装。电缆  
盘应符合JB/T 8137规定。

每个包装件上应附有标签，标明：

- 制造厂名；
- 产品型号；
- 规格，mm<sup>2</sup>；
- 额定电压，V或kV；
- 长度，m。

## Packing

The cable should be delivered in drum or in coil, and it should  
be wrapped well and properly wrapped. The cable drum shall  
be in accordance with the JB/T 8137.

Each package should be attached with a label. It is indicated  
that:

- manufacturer's name;
- product model;
- specification, mm<sup>2</sup>;
- rated voltage, V or kV;
- length, M.





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