

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 U_0/U ：0.6/1kV；
- 2、电缆导体长期允许最高温度为90℃，短路时最高温度为250℃（最长持续时间为5秒）；
- 3、安装敷设环境温度不低于0℃，固定敷设时环境温度不低于-10℃；
- 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，耐高温耐候性好；
- 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℃时导体最大直流电阻；

导体标称截面 mm ² Nominal cross section area of conductor	20℃时导体最大直流电阻Ω/km Max DC resistance of conductor at 20℃		导体标称截面 mm ² Nominal cross section area of conductor	20℃时导体最大直流电阻Ω/km Max DC resistance of conductor at 20℃	
	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 U_0/U : 0.6/1kV
2. Max temperature of cable conductor for Long-term working is 90℃. Max. working temperature of cable conductor is 250℃ during short circuit (the longest lasting time shall be no more than 5 seconds).
3. Environment temperature for installing is no less than 0℃, the ambient temperature of fixed laying is not less than -10℃.
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、BPYJVPLPR、BPYJVPLP1R、BPYJVP2R 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 4 core cable.

Main Technical Parameter

1. Max DC resistance of conductor at 20℃

2、交流电压试验

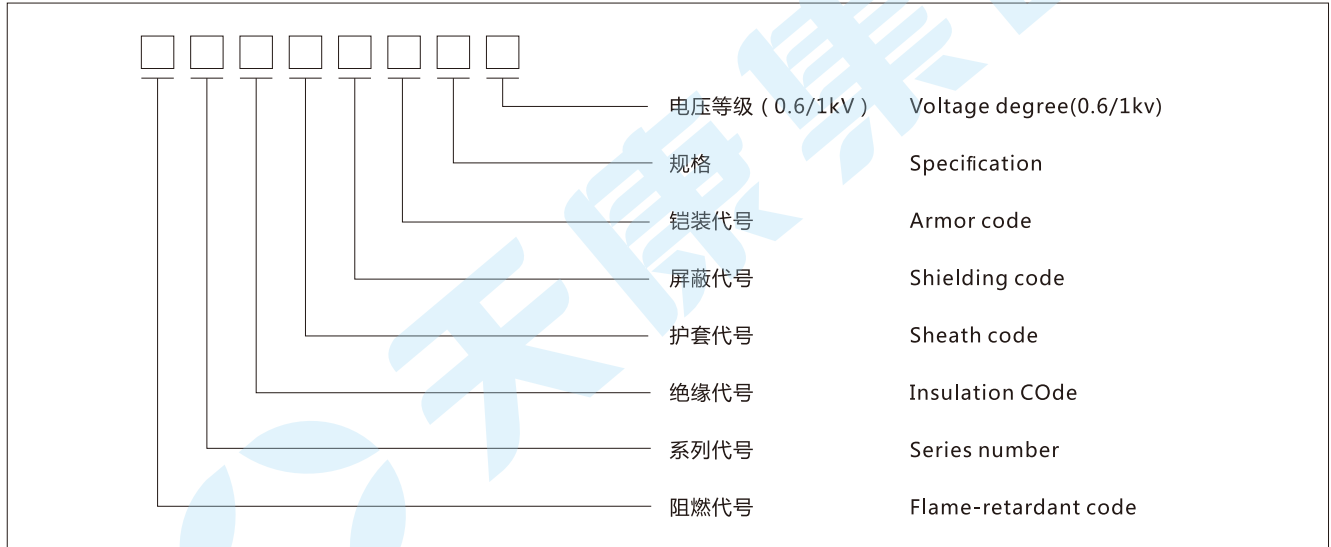
电压应依次施加在每一绝缘导体对其余导体和绕包金属层之间施加试验电压3500V/5min，绝缘应无击穿。试验应在环境温度下进行。

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	铜丝缠绕+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+铝带绕包 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 钢带铠装聚烯烃护套/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 ² 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	主线芯截面：2.5~240 Cross section area of main core: 2.5~240 副线芯截面：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.

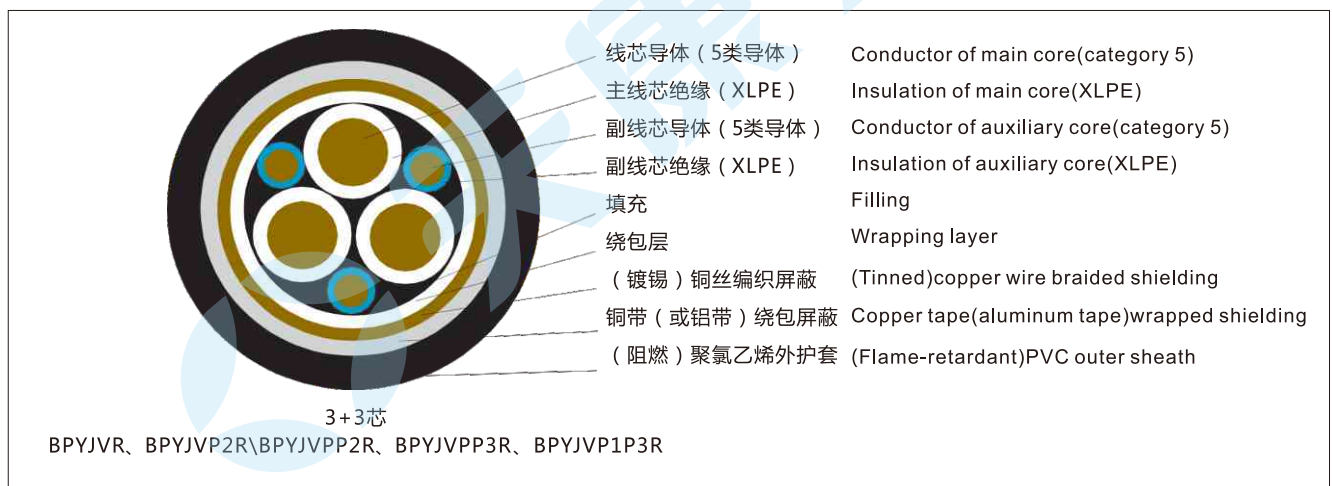
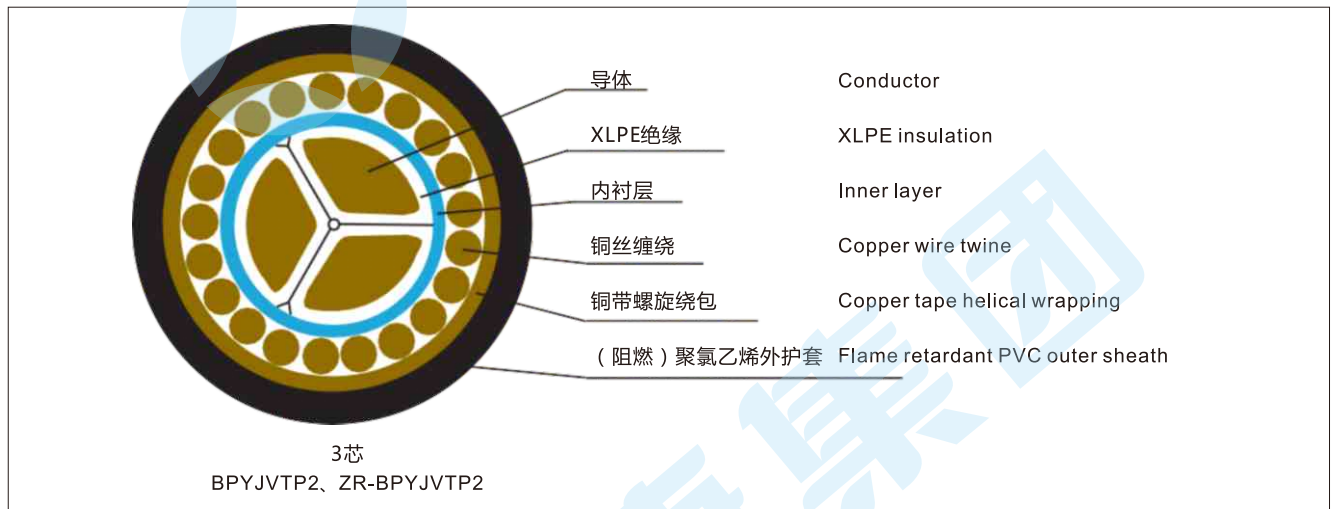
六、型号名称

Type and Description

型号 Type	名称 Description
BPYJVP(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缠绕+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镀锡丝编织屏蔽+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 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镀锡丝编织屏蔽+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、BPYJVP2R、BPYJVPP2R、BPYJVP1P
2R, 3+3芯；

2.BPYJVPR、BPYJVP2R、BPYJVPP2R、BPYJVP1P2R, 3+3 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
3×2.5+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	7098	355
3×240+3×35	69.0	10221	416

九、交货长度

Delivery Length

根据双方协议长度供货。

According to the agreement between both parties.