

变频电缆  
Frequency Converter Cable



# 变频电缆

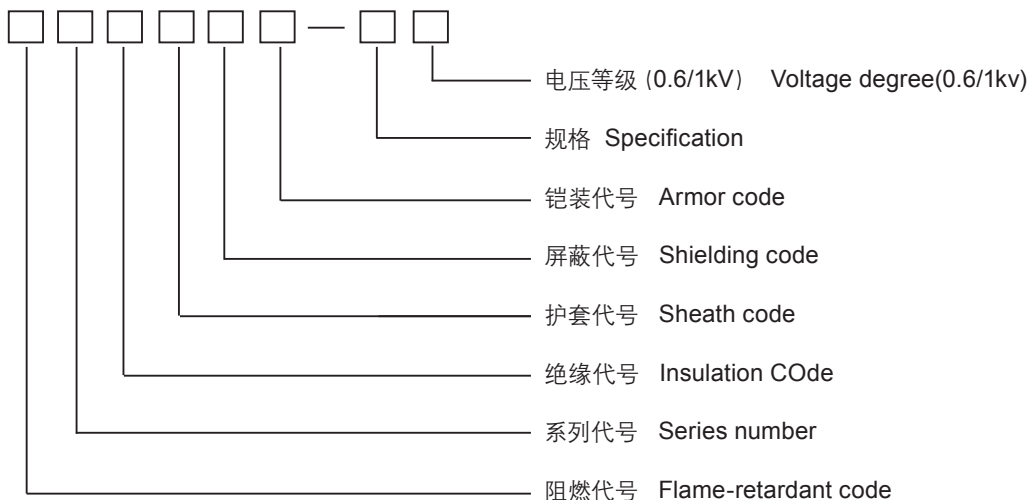
## Frequency Converter Cable

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。

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 packinghouse etc.

### 型号说明

### Type Introduction



### 使用条件

### Working Condition

- 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)。

- 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 and -10°C for fixed installing.
- 4: Min bending radius allowed by cable is no less than 15D. (D means outer diameter of cable with unit "mm" )

### 产品性能

### Product Performance

- 1、BPYJVP12R、ZR-BPYJVP12R、BPYJVPX13R、ZR-BPYJVPX13R型设计采用符合GB/T3956-1997规定的第5类软绞合铜导体。
- 2、交联聚乙烯绝缘, 耐温耐候性好。
- 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。
- 7、具有较强的耐电压冲击性, 能经受高速频繁变频时的脉冲电压。

- 1: Design for type BPYJVP12R、ZR-BPYJVP12R、BPYJVPX13R、ZR-BPYJVPX13R meets the requirements of soft stranded copper conductor of category 5 stipulated in GB/T3956-1997 standard.
- 2: XLPE insulation, good performance of weather resistance and humidity resistance.
- 3: Low transmission impedance; good performance of electromagnetic compatibility
- 4: Low working capacitance
- 5: Good performance of interference resistance and low radiation
- 6: Symmetrical structure design for cable with 3 cores, which has better transmission performance compared with cable with 4 cores.

## 主要技术参数

## Main Technical Parameter

### 1、20°C时导体最大直流电阻

### 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	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
0.5	36.0	25	0.727
0.75	24.5	35	0.524
1.0	18.1	50	0.387
1.5	12.1	70	0.268
2.5	7.41	95	0.193
4	4.61	120	0.153
6	3.08	150	0.124
10	1.83	185	0.0991
16	1.15	240	0.0754

### 2、交流电压试验

### A.C. Voltage Test

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。

Between each insulated conductor to other conductor and wrapped metallic layer, voltage test of 3500V under power frequency is put on for 5 minutes without puncture of insulation. And test will be done at the environment temperature.

## 型号名称

## Type and Description

型号Type	名称Description
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 Cu core, XLPE insulation, PVC sheath, copper wire winding plus copper tape wrapping shielding
ZR-BPYJVTP2	铜芯交联聚乙烯绝缘阻燃聚氯乙烯护套铜丝缠绕+铜带绕包屏蔽阻燃型变频电缆 Flame retardant type frequency converter cable with Cu core, XLPE insulation, flame retardant PVC sheath, copper wire winding plus copper tape wrapping shielding
BPYJVP12R	铜芯交联聚乙烯绝缘聚氯乙烯护套铜带绕包+铜丝编织双屏蔽变频软电缆 Frequency Converter soft cable with Cu core, XLPE insulation, PVC sheath, copper tape wrapping plus copper wire braided dual shielding
ZR-BPYJVP12 R	铜芯交联聚乙烯绝缘阻燃聚氯乙烯护套铜带绕包+铜丝编织双屏蔽阻燃型变频软电缆 Flame retardant type frequency converter soft cable with Cu core, XLPE insulation, flame retardant PVC sheath, copper tape wrapping plus copper wire braided dual shielding
BPYJVPX13R	铜芯交联聚乙烯绝缘聚氯乙烯护套铝带绕包+镀锡铜丝编织双屏蔽变频软电缆 Frequency converter soft cable with Cu core, XLPE insulation, PVC sheath, aluminum tape wrapping plus tinned copper wire braided dual shielding
ZR-BPYJVPX13R	铜芯交联聚乙烯绝缘阻燃聚氯乙烯护套铝带绕包+镀锡铜丝编织双屏蔽阻燃型变频软电缆 Flame retardant type frequency converter soft cable with Cu core, XLPE insulation, flame retardant PVC sheath, aluminum tape wrapping plus tinned copper wire braided dual shielding

## 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
BPYJVTP2 ZR-BPYJVTP2	3+1	4~240
BPYJVP12R、ZR-BPYJVP12 R BPYJVPX13R、ZR-BPYJVPX13R	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

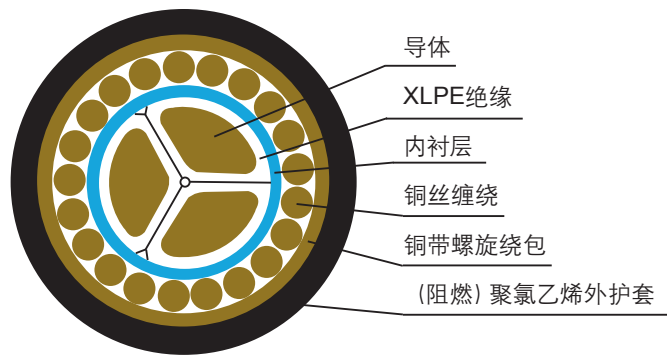
注: 另可根据用户需要提供铠装结构变频电缆。

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

项目 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 code	YJ	交联聚乙烯绝缘 XLPE insulation
护套代号sheath code	V E	聚氯乙烯护套PVC sheath 无卤低烟聚烯烃护套 low smoke & free halogen polyolefin sheath
屏蔽代号shielding code	TP2 P12 PX13	同心导体+铜带绕包屏蔽 concentric conductor plus copper tape wrapped shielding 铜带绕包+铜丝编织屏蔽 copper tape wrapping plus copper wire braided shielding 铝带绕包+镀锡铜丝编织屏蔽 Aluminum tape wrapping plus tinned copper wire braided shielding
铠装代号armoring code	22 23	钢带铠装聚氯乙烯护套 steel tape armor PVC sheath 钢带铠装聚烯烃护套 steel tape armor polyolefin sheath
阻燃代号flame-retardant code	ZR	阻燃型 (C类) flame-retardant type (category C)

### 产品结构示意图

### The Figure of Cable Structure



3+1芯  
BPYJVTP2、ZR-BPYJVTP2

conductor/XLPE insulation/inner layer/copper wire winding/copper tape helical wrapping/flame retardant PVC outer sheath/ 3+1 core



3+3芯  
BPYJVP12R、ZR-BPYJVP12R  
BPYJVPX13R、ZR-BPYJVPX13R

## 外径尺寸

## Dimension of Outer Diameter

### 1、BPYJVTP2、ZR-BPYJVTP2 3+1 core

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+1×95	44.2	5410	310
3×185+1×95	48.5	7062	355
3×240+1×120	54.6	9811	416

### 2、BPYJVP12R、ZR-BPYJVP12 R

### BPYJVPX13R、ZR-BPYJVPX13R 3+3 core

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	15.4	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

## 交货长度

根据双方协议长度供货。

## Delivery Length

According to the agreement between both parties.