

## 胜华电缆

TYPE SELECTING MANUAL OF  
SHENGHUA CABLE

Shenghua main produces over 80 series and 20,000 specs cables like 110KV and/or bellow high voltage cable, power cable, mining cable, prefabricated branch cable, control cable, computer cable, communication cable and special cables for oxygen insulation cable, little smoke and low chimney, little smoke and without chimney, flame-resistance, proof-fire, besides, the products with high new technology such as HV cable branch box and outdoor ring main unit are developed by Shenghua.

胜华主要生产产品有110kV及以下高压电缆、电力电缆、矿用电缆、母线槽、电缆桥架、预制分支电缆、控制电缆、计算机电缆、通信电缆及隔氧、低烟低卤、低烟无卤、阻燃、耐火等各种电线电缆共80多个系列20000多种规格。

胜华YDF系列预制分支电缆，品种多样规格齐全。适用于中高层建筑及工厂、矿山、公路、隧道、机场、桥梁、场馆、学校、医院，企事业单位中输送额定电压在1000V以下的供电系统。

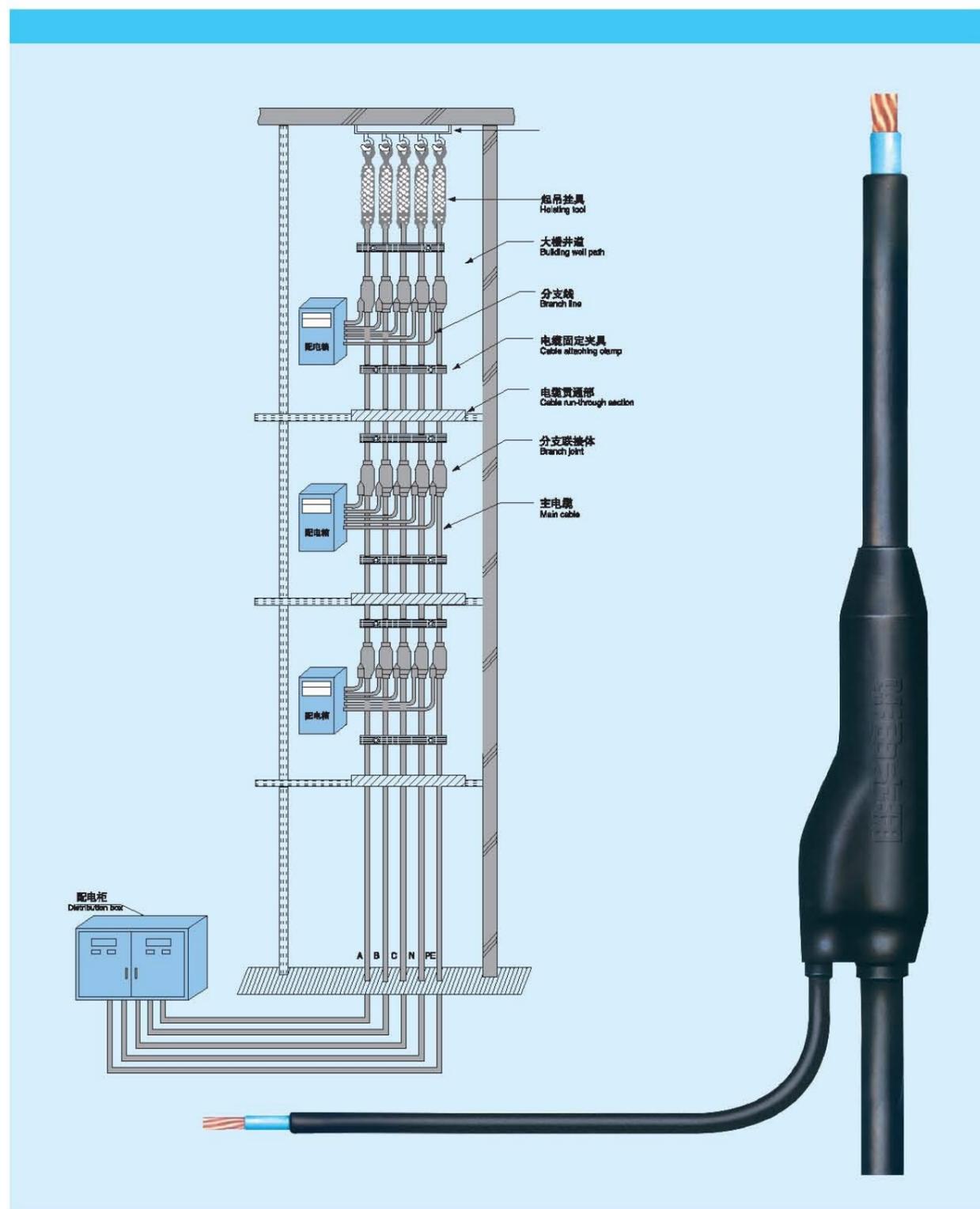
## Product lectotype 产品选型



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## YDF系列预制分支电缆安装示意图

Installation drawing of YDF series prefabricated branch cable



## YDF系列预制分支电缆的主要优点

Main Characteristics of YDF Series Prefabricated Branch Cable

### 具有优良的供电安全可靠

- 主干电缆导体无接头，连续性好，减少了故障点。
- 分支接头采用工厂全程机械化制作，大大降低了人为因素造成质量不良现象。
- 分支接头结构合理并采用先进的LYZ工艺制作，接触电阻极小，不受热胀冷缩影响。
- 短时间内完成压模护套，避免了接头接触处铜芯长时间裸露在空气中产生氧化而导致接触电阻变化。
- 分支接头有严格的技术标准和检验要求，以及严密的质保体系。

### 安装简便，环境要求低，施工方便

- 占用建筑面积小，有利于建筑面积的有效使用。
- 使用环境要求低，安装精度要求低。
- 安装简单方便，安装技术要求不高，安装周期短，仅为母线槽安装工时的1/10或1/20。安装劳动强度小。
- 由于它的弯曲半径小，大大地降低了安装难度和缩小了空间尺寸。

### 优良的抗震性、气密性、防水性和耐火性

- 优良的抗震性，一般机械连接母线槽接头，在墙体受震动后会发生接头松动，而YDF系列预制分支电缆不会受到影响。特别在通过建筑沉降缝时不需要任何措施。
- 良好的气密性和防水性，能在潮湿的环境中正常供电，也能在露天及埋地敷设使用，但母线槽绝对不能做到。
- 采用“NH”型的预制分支电缆，可在燃烧情况下，保持90min的正常供电运行。

### 免维护

- 预制分支电缆按规定方法安装后，一次性开通率高。
- 正常运行的预制分支电缆系统平时不需要作任何维护保养。

### 可明显降低配电成本

- 与母线槽相比，可降低工程造价，且技术经济指标高，综合经济效益显著。

### 品种规格多，选用灵活，任意组合

- 主电缆从10mm<sup>2</sup>到1200mm<sup>2</sup>，分支电缆从4mm<sup>2</sup>到300mm<sup>2</sup>任意组合选用。
- 电缆品种多，有VV、ZR-VV、NH-VV、YJV、ZR-YJV、NH-YJV、SC1A-CE、SC3A-CV、SC1-FPB-CE、SC3-FPB-CV、GZR-YJV、GDL-YJV、GWL-YJV、GWL-YJE、GNH-YJV、GNH-YJE等，可根据需要选用。
- 分支接头可根据楼层需要任意设定分支位置。

### Safety in power supply

- Trunk cable conductor without joint has good continuity and reduces trouble spots.
- Branch joint made through whole course mechanical processing in the factory greatly reduces poor quality phenomena due to manmade factors.
- Branch joint of rational structure and made through advanced LYZ workmanship has little contact resistance and cannot be affected by thermal expansion and cold shrinkage.
- Pressing mould jacket processed in short time avoids variation of contact resistance owing to oxidization of copper core at the joint position which is exposed in the air for long time.
- Branch joint has strict technical standard, inspection requirement, and quality control system as well.

### Simplicity in installation, low requirement to environment, and convenience in construction

- Small land-covering area facilitates effective use of floorage.
- Low requirement to environment and low requirement to installation precision.
- Simplicity in installation and low requirement to installation technology. The installation period is short only 1/10 or 1/20 of that of bus duct. The labor strength for installation is small.
- Small bending radius greatly reduces installation difficulty and reduces space size.

### Excellent shock resistance, air tightness, water proofing quality and flame resistance

- Excellent shock resistance. Generally, the bus duct joint connected mechanically will be loose upon the wall is shocked. But YDF series prefabricated branch cable will not be affected. Especially passing through building sedimentation slots, no measure is need.
- Excellent air tightness and water proofing quality. It can supply power normally in damp environment and be laid in the open air or underground.
- NH type prefabricated branch cable can remain normal power supply operation for 90 min under flaming condition.

### Free of maintenance

- High once opening rate of prefabricated branch cable after being installed according to stipulated ways.
- While normally work, prefabricated branch cable system is free of maintenance generally.

### Distinctly reducing electric distribution cost

- In comparison with bus duct, it can reduce engineering cost, and has high technical and economical index, and remarkable comprehensive economic results.

### Multiple categories and specifications, flexible option, and combination at will

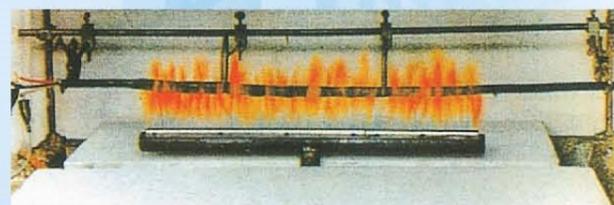
- Main cable from 10mm<sup>2</sup> to 1200mm<sup>2</sup> and branch cable from 4mm<sup>2</sup> to 300mm<sup>2</sup> can be combined at will.
- Multiple cable categories, e.g. VV,ZR-VV,NH-VV,YJV,ZR-YJV, and NH-YJV,SC1A-CE,SC3A-CV, SC1-FPB-CE,SC3-FPB-CV,GZR-YJV,GDL-YJV,GWL-YJV,GWL-YJE,GNH-YJV,GNH-YJE etc.can be chosen according to the demand.
- Branch joint can be set up branch positions at will according to the floor requirement.

## YDF系列预制分支电缆的主要特性

- 绝缘电阻 $\geq 200M\Omega$ ;
- 绝缘耐压 $\geq 3.5KV/5min$ ;
- 良好的气密性与防水性,即将分支接头浸入水中,在水与电缆芯间测绝缘电阻和工频耐压均符合1、2的要求。
- 分支接头的接触电阻小,接触电阻与等长的基准电阻之比值 $\leq 1.2$ ;
- 接头短路强度高,短路后接触电阻比率的变化率 $\leq 0.2$ ;
- ZR-YJV型阻燃预制分支电缆,护套的自熄时间 $\leq 12S$ ;符合GB12666.5的要求;
- NH耐火型除了能在正常的工作条件下供电外,也能在燃烧情况下,保持90min的正常运行;符合GB12666.6的要求;
- VV型电缆的铜芯的最高工作温度可达70°C, YJV型电缆的铜芯的最高工作温度可达90°C;
- 具有优良的耐腐蚀性,能抵抗无机盐、油、碱、酸和有机溶剂对它的腐蚀;
- YJV型预制分支电缆具有优良的热稳定性的抗老化性。
- SC1A-CE预制安全清洁(环保)分支电缆。具有低毒、低烟、无卤(低卤)阻燃安全清洁等特点。
- SC1-FPB-CE安全清洁(环保)耐火分支电缆。具有低毒、低烟、无卤(低卤)阻燃安全清洁、耐火等特点。
- GZR-YJV隔氧层(高阻燃)、高耐火分支电缆。具有高阻燃、阻燃性能超过阻燃标准A类。

## YDF Series Prefabricated Branch Cable

- Insulation resistance $\geq 200M\Omega$ ;
- Insulation withstand voltage $\geq 3.5KV/5min$ ;
- Excellent air tightness and water proofing quality. When immerge branch joint into water, measured insulation resistance between water and cable core, and power frequency withstand voltage meet the requirement of items 1 and 2;
- Little contact resistance of branch joint. The ratio value of contact resistance vs reference resistance of equal length branch line is equal to or less than 1.2;
- Large joint short circuit strength. The variation rate of contact resistance ratio after short circuit is equal to or less than 0.2;
- For ZR-YJV type flame-retarded prefabricated branch cable, self extinguishing time of jacket is equal to or less than 12s and meets GB12666.5;
- Besides power supply in normal working condition, NH fire resistance type can remain normal operation for 90min under burning condition GB12666.6;
- Max. working temperature of copper core of VV type cables is up to 70°C and that of YJV type cable up to 90°C;
- With excellent corrosive resistance, it can keep from eroding of inorganic salt, oil, base, acid, organic solution and so on;
- YJV type branch cable has excellent thermal stability and aging resistance.
- SC1A-CE prefabricated safety & clean branch cable of environmental protection with many characteristics such as low toxicity, low smoke, halogen free (low halogen), antifiaming, safety and cleanness, etc.
- SC1-FPB-CE safety & clean fireproof branch cable of environmental protection with many characteristics such as low toxicity, low smoke, halogen free (low halogen), antifiaming, safety, cleanness, and fireproof, etc.
- GZR YJV oxygen barrier branch cable (high flame retardance and fire resistance) With high flame retardance and fire resistance which exceeds Antifiaming Standard A class



## YDF系列预制分支电缆品种、型号

### VARIETY AND MODEL DEMONSTRATION OF YDF SERIES PRESET BRANCH CABLE

- YJV-交联聚乙烯绝缘聚氯乙烯护套电力电缆。
- ZR-YJV-交联聚乙烯绝缘聚氯乙烯护套阻燃电力电缆。
- NH-YJV-交联聚乙烯绝缘聚氯乙烯护套耐火电力电缆。
- VV-聚氯乙烯绝缘聚氯乙烯护套电力电缆。
- ZR-VV-聚氯乙烯绝缘聚氯乙烯护套阻燃电力电缆。
- NH-VV-聚氯乙烯绝缘聚氯乙烯护套耐火电力电缆。

注: 1.未做特别说明,电缆均为额定电压( $u_0/u$ )为0.6/1KV铜单芯低压电力电缆。  
2.主干电缆均采用黑色护套电力电缆。  
3.分支电缆无特别说明均采用主干电缆同品种电力电缆。  
4.分支线若要求采用色标(黄、红、绿、浅蓝、黄绿)BV-500型电线,应在订货时详细说明。

- YJV-XLPE Insulated and PVC Sheathed Power Cable.
- ZR-YJV-XLPE Insulated and PVC Sheathed Flame Retardant Power Cable.
- NH-YJV-XLPE Insulated and PVC Sheathed Slow-burning Power Cable.
- VV-PVC Insulated And Sheathed Power Cable
- ZR-VV-PVC Insulated and Sheathed Flame Retardant Power Cable
- NH-VV-PVC Insulated and Sheathed Slow-burning Power Cable

#### Notes:

- 1.The cable is single core copper cable with 0.6/1KV rated voltage( $u_0/u$ )without special indication.
- 2.The main cables are electric ones applying black protection cover.
- 3.Without special indication, the branch cables all apply the same type of electric ones as the main cables.
- 4.If the branch cable requires model BV-500 wire with color marks(yellow, red, green, light blue, yellow/green). It should be specified during ordering.

## YDF系列安全清洁(环保)预制分支电缆品种、型号

### Varieties and models for YDF series prefabricated safety & clean branch cable of environmental protection

- 交联聚乙烯绝缘安全清洁电力电缆  
SC1A-CE交联聚乙烯绝缘无卤聚烯烃护套安全清洁电力电缆。  
SC3A-CV交联聚乙烯绝缘低卤聚烯烃护套安全清洁电力电缆。  
SC3C-CV交联聚乙烯绝缘低卤聚烯烃护套安全清洁电力电缆。
- 安全清洁耐火电缆  
SC1-FPB-CE 交联聚乙烯绝缘无卤聚烯烃护套安全清洁耐火电缆。  
SC3-FPB-CV交联聚乙烯绝缘低卤聚烯烃护套安全清洁耐火电缆。
- Cross link polyethylene insulated safety & clean power cable  
SC1A-CE cross link polyethylene insulated safety & clean power cable with halogen free polyolefine jacket.  
SC3A-CV cross link polyethylene insulated safety & clean power cable with low halogen PVC jacket.  
SC3C-CV cross link polyethylene insulated safety & clean power cable with low halogen PVC jacket.
- Safety & clean fireproof cable  
SC1-FPB CE cross link polyethylene insulated safety & clean fireproof cable with halogen free polyolefine jacket.  
SC3-FPB CV cross link polyethylene insulated safety & clean fireproof cable with low halogen PVC jacket.

## YDF系列隔氧层预制分支电缆品种、型号

### Varieties and models for YDF series oxygen barrier prefabricated branch cable

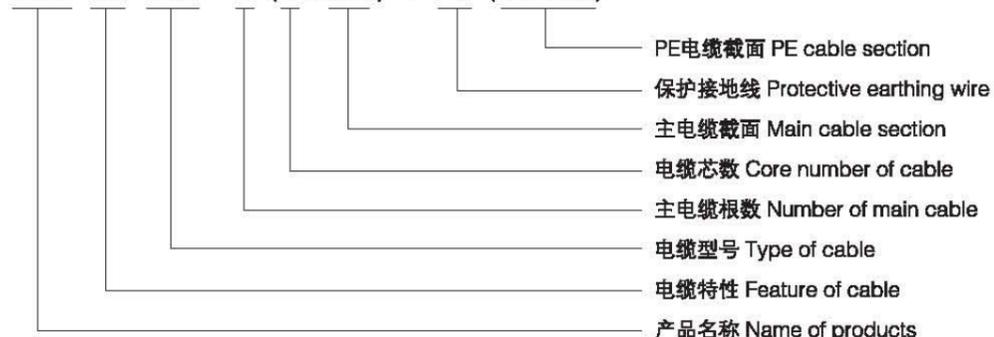
- GZR-YJV交联聚乙烯绝缘聚氯乙烯护套隔氧层阻燃电力电缆。
- GDL-YJV交联聚乙烯绝缘低卤低烟聚烯烃护套隔氧层阻燃电力电缆。
- GWL-YJE交联聚乙烯绝缘无卤、低烟聚烯烃护套隔氧层阻燃电力电缆。
- GNH-YJV交联聚乙烯绝缘聚氯乙烯护套隔氧层耐火阻燃电力电缆。
- GNH-YJE交联聚乙烯绝缘聚烯烃护套隔氧层耐火阻燃电力电缆。
- GZR-YJV cross link polyethylene insulated oxygen barrier antifiaming power cable with PVC jacket
- GDL-YJV cross link polyethylene insulated oxygen barrier antifiaming power cable with low halogen and low smoke PVC jacket
- GWL-YJE cross link polyethylene insulated oxygen barrier antifiaming power cable with halogen-free and low smoke polyolefine jacket
- GNH-YJV cross link polyethylene insulated oxygen barrier antifiaming power cable with PVC jacket
- GNH-YJE cross link polyethylene insulated oxygen barrier antifiaming power cable with polyolefine jacket

## 单芯分支电缆型号示范

### Model demonstration of single-core branch cable

主缆Main cable:

YDF-ZR-YJV-4(1×240)+PE(1×120)



分缆: YDF-ZR-YJV-4(1×35)+PE(1×16)

举例Example:

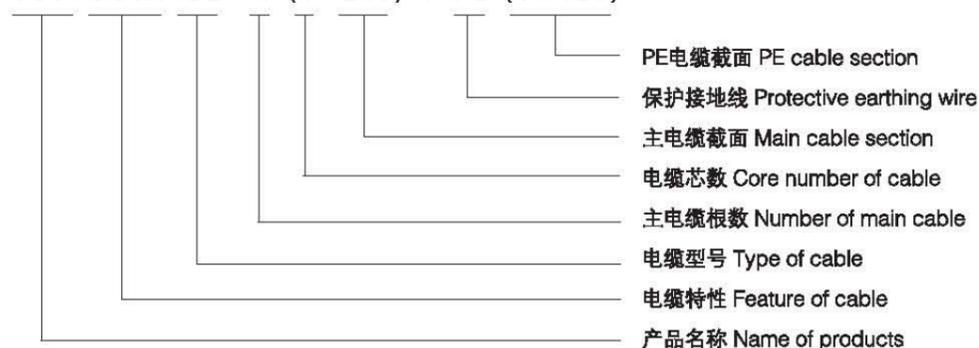
- 主电缆表达为: YDF-ZR-YJV-4(1×240)  
分支电缆表达为: YDF-ZR-YJV-4(1×35)  
或表达为: YDF-ZR-YJV-4(1×240)/4(1×35)
  - 主电缆表达为: YDF-YJV-4(1×185)+PE(1×95)  
分支电缆表达为: YDF-YJV-4(1×25)+PE(1×16)  
或表达为: YDF-YJV-4(1×185)+PE(1×95)/4(1×25)+PE(1×16)
- main cable is denoted as: YDF-ZR-YJV-4(1×240)  
branch cable is denoted as: YDF-ZR-YJV-4(1×35)  
YDF-ZR-YJV-4(1×240)/4(1×35)
  - main cable is denoted as: YDF-YJV-4(1×185)+PE(1×95)  
branch cable is denoted as: YDF-YJV-4(1×25)+PE(1×16)  
YDF-YJV-4(1×185)+PE(1×95)/4(1×25)+PE(1×16)

## 单芯安全清洁分支电缆型号示范

### Model demonstration of single-core safe and clean branch cable

主缆Main cable:

YDF-SC1A-CE-4(1×240)+PE(1×120)



分缆: YDF-SC1A-CE-4(1×35)+PE(1×16)

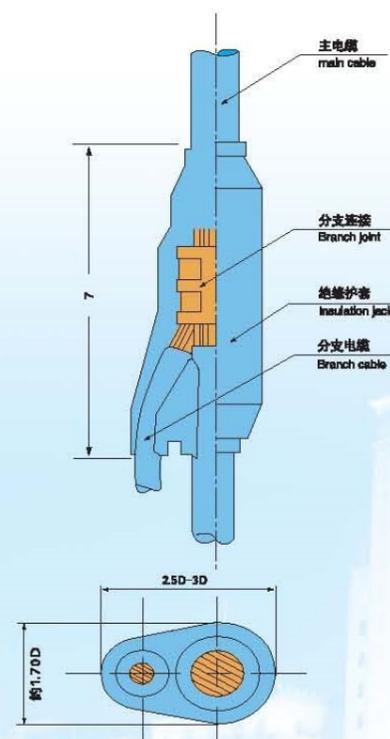
- 主电缆表达为: YDF-SC1A-CE-4(1×240)  
分支电缆表达为: YDF-SC1A-CE-4(1×35)  
或表达为: YDF-SC1A-CE-4(1×240)/4(1×35)
  - 主电缆表达为: YDF-SC1A-CE-4(1×185)+PE(1×95)  
分支电缆表达为: YDF-SC1A-CE-4(1×25)+PE(1×16)  
或表达为: YDF-SC1A-CE-4(1×185)+PE(1×95)/4(1×25)+PE(1×16)
- main cable is denoted as: YDF-SC1A-CE-4(1×240)  
branch cable is denoted as: YDF-SC1A-CE-4(1×35)  
YDF-SC1A-CE-4(1×240)/4(1×35)
  - main cable is denoted as: YDF-SC1A-CE-4(1×185)+PE(1×95)  
branch cable is denoted as: YDF-SC1A-CE-4(1×25)+PE(1×16)  
YDF-SC1A-CE-4(1×185)+PE(1×95)/4(1×25)+PE(1×16)

## 分支接头的结构

### Structure of branch joint

“胜华分支电缆”的分支连接体是根据日本JCS376标准要求制造,接头所采用U型、C型、O型三种,质量均达到国际领先水平。用PVC或PVC合成材料制成的如图所示的分支连接体。分支开口的方向,既可向下、亦可向上,按现场需要而定。

The branch connectors of “shenghua branch cables” are produced in line with Japanese JCS376 standard, and the joints have three types U, C and O, and the quality reaches international leading level. Please refer to the diagram for branch connectors that are made of PVC or PVC composite material. Direction of branch cables opening, namely, upward or downward, depending on field demands.



电缆规格(mm <sup>2</sup> ) Cable specs(mm <sup>2</sup> )	10~25	35~70	95~185	240~400	500~630	800~1000
L尺寸(mm) Size of L(mm <sup>2</sup> )	120	125	125	150	175	185

## YDF预制多芯分支电缆

### YDF THE MULTI-CORE PREFABRICATED BRANCH CABLE

#### 概述

根据用户的实际需要,以及有关电气设计人员所提供的宝贵意见,胜华电缆集团在单芯预制分支电缆的基础上,又成功的开发了三相五线等多芯预制分支电缆系列产品,它主要应用于工厂、中高层建筑等照明和动力用电。

我集团生产规格为:  $4 \times 300+1 \times 150$  及以下的产品。品种也有普通型、阻燃型、耐火型、安全清洁(环保)型、隔氧层阻燃耐火型等截面和不等截面。多芯预制分支电缆的安装方式与单芯分支电缆相似。

#### General description

According to actual demands of users and valuable advice from related electric designers, Shenghua cable group has developed series products of three-phase four-wire and other multicore prefabricated branch cable on the basis of single-core prefabricated branch cable. They are mainly applied to lighting and dynamic electricity factory and middle/high building.

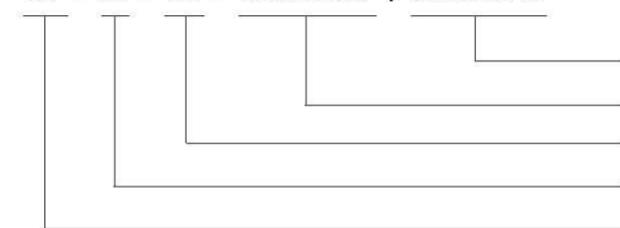
Because multicore cable has large outside diameter and heavy weight, after it is made to preset branch cable, the outside diameter will be larger and result in difficulty in laying. Therefore, the largest multicore prefabricated branch cable manufactured by our group is restricted below  $120\text{mm}^2$ . There are a variety of flame retarded type and fireproof type in equal or different section.

At present, the branch wire of multicore prefabricated branch cable can only be a grade section in a loop. If you adopt branch wire of different sections, you can choose single-core prefabricated branch wire. Current carrying capacity of multicore prefabricated branch cable is the same to that of multicore, and the installing method is similar to that of multicore cable.

#### 多芯分支电缆型号示范

##### Model demonstration of multi-core branch cable

YDF - ZR - YJV -  $3 \times 95+2 \times 50$  /  $3 \times 25+2 \times 16$

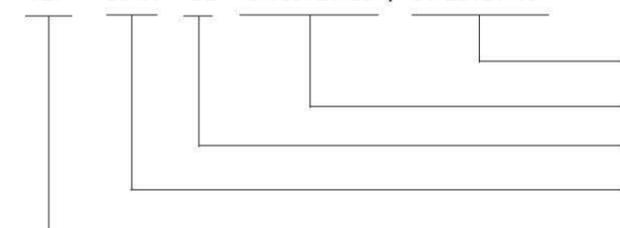


- 举例: 1、YDF-ZR-YJV-( $3 \times 95+2 \times 50$ )/( $3 \times 25+2 \times 16$ )  
2、YDF-ZR-YJV-( $4 \times 95+1 \times 50$ )/( $4 \times 25+1 \times 16$ )

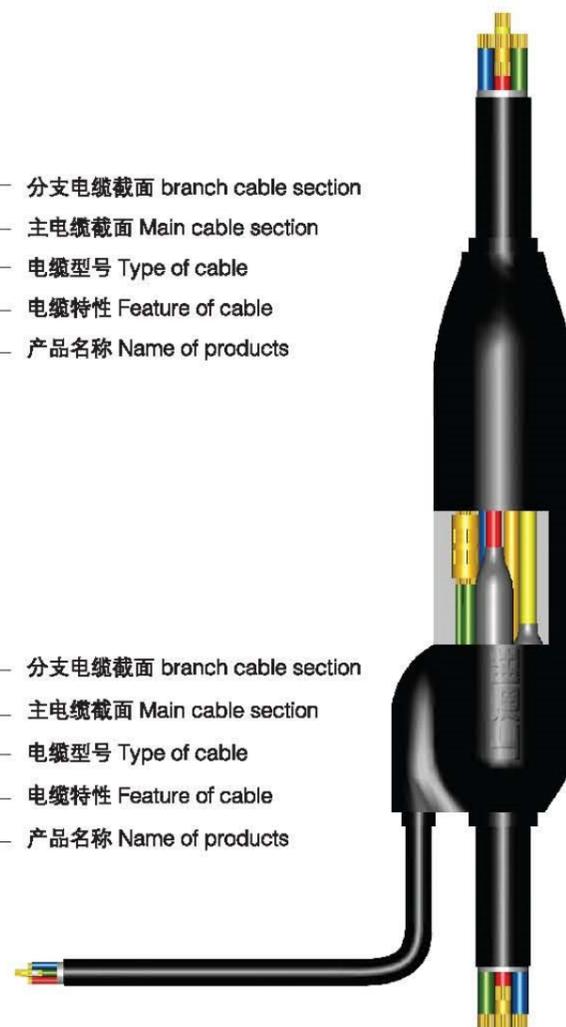
#### 多芯安全清洁(环保)分支电缆型号示范

##### Model demonstration of multi-core safe and clean branch

YDF - SC1A - CE -  $3 \times 95+2 \times 50$  /  $3 \times 25+2 \times 16$



- 举例: 1、YDF-SC1A-CE-( $3 \times 95+2 \times 50$ )/( $3 \times 25+2 \times 16$ )  
2、YDF-SC1A-CE-( $4 \times 95+1 \times 50$ )/( $4 \times 25+1 \times 16$ )



## YDF预制铠装多芯分支电缆

### YDF ARMoured MULTI-CORE PREFABRICATED BRANCH CABLE

#### 概述

随着我国国民经济的迅速发展,大中城市兴建的地铁、机场、隧道、桥梁、大范围的楼群的用电和照明等都迫切需求一种:既要符合环保要求、又能适应上述建筑特点的输配电线路。

为适应市场的需求,上海胜华电缆集团新产品研究所特开发、研制出符合环保要求的大截面铠装预制多芯分支电缆,并已投入批量生产。型号规格有:普通型、交联型、阻燃型、耐火型、安全清洁型、隔氧层阻燃耐火型。电缆最大截面可达:  $240\text{mm}^2$ /相;分支截面可按用户要求生产。

#### General description

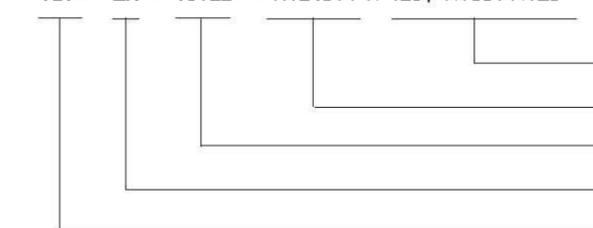
By the quick development of the national economy, meet the demand of the electric and illumination in the subway, airport, bridge and large scope buildings of large and medium city at one side, they must be suitable for the outside electric board of the terminal circuit.

To meet the demand of the market, shanghai shenghua cable group new products research institute is specially in developing and studying the multi-core prefabricated branch cable. And now they are putting into are product normal, connect type, anti-combustion type, sub-fire type, safety and baro and anti-combustion type. the max section of the cable:  $240\text{mm}^2$ ; the branch of the section side can be made by the command of the clients.

#### 铠装多芯分支电缆型号示范

##### Model demonstration of armoured multi-core branch cable

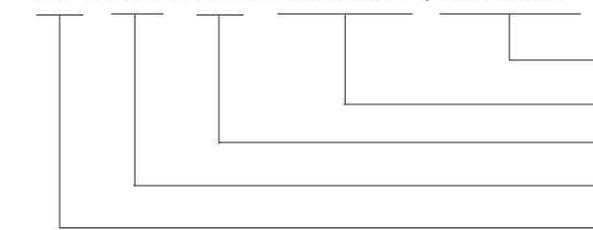
YDF - ZR - YJV22 -  $4 \times 240+1 \times 120$  /  $4 \times 50+1 \times 25$



#### 铠装多芯安全清洁(环保)分支电缆型号示范

##### Model demonstration of armoured multi-core safe and clean branch

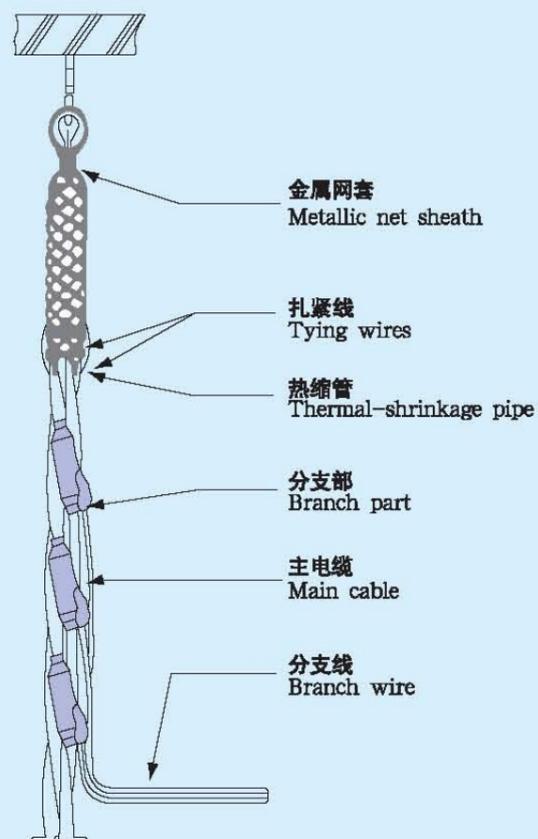
YDF - SC1A - CE22 -  $4 \times 185+1 \times 95$  /  $4 \times 35+1 \times 16$



## YDFN 绞型分支电缆

coil bulking type branch cable

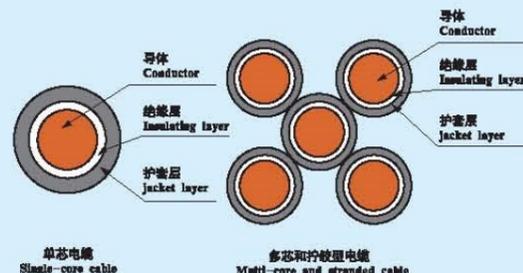
YDFN 绞型分支电缆安装示意图  
Sketch of coil bulking type branch cable



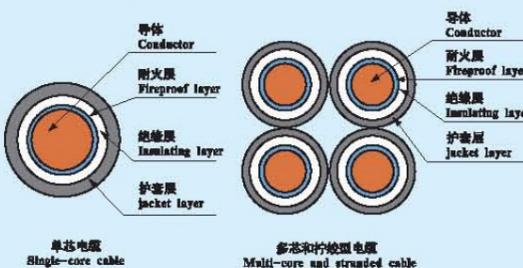
## 预制分支电缆结构

Prefabricated Branch Cable Structure

普通型电缆结构 (三相五线)  
General cable structure (Three-phase five wire)



耐火型电缆结构 (三相四线)  
Fireproof type cable structure (Three-phase four wire)

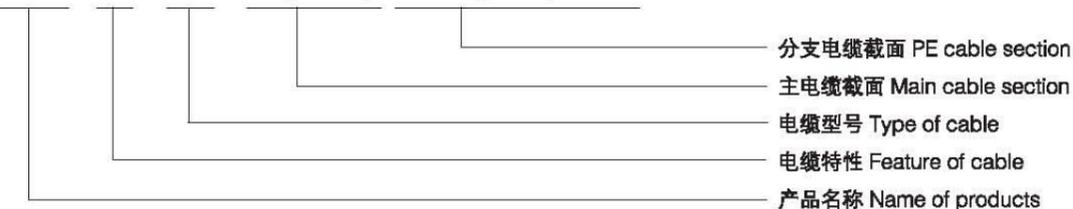


主干电缆和分支电缆以其型号相对应参照IEC、GB、JIS、JCS、BS等标准制造，一般主电缆采用单芯、多芯和绞型几种，分支电缆一般采用与主干电缆同型号的电缆。

Main cable and branch cable in corresponding type are made to IEC, GB, JIS, JCS, BS and other standards. Generally, the main cable adopts single core, multicore, coil bulking and so on. While branch cable adopts single core cable.

## 绞型分支电缆型号示范 Example of branch type of coil bulking type cable

YDFN - ZR - YJV - 4 × (1 × 240) + 120/4 × (1 × 35) + 1 × 16



举例：1、主电缆表达为：YDFN-ZR-YJV-4 × (1 × 240 + 1 × 120)  
分支电缆表达为：YDFN-ZR-YJV-4 × (1 × 35) + 1 × 16  
或表达为：YDFN-ZR-YJV-4 × (1 × 240) + 1 × 120/4 × (1 × 35 + 1 × 16)

1、main cable is denoted as: YDFN-ZR-YJV-4 × (1 × 240 + 1 × 120)  
branch cable is denoted as: YDFN-ZR-YJV-4 × (1 × 35) + 1 × 16  
YDFN-ZR-YJV-4 × (1 × 240) + 1 × 120/4 × (1 × 35 + 1 × 16)

绞型最大规格可到：4 × (1 × 400) + 1 × 185，  
(建议垂直长度控制在50m以内)。

## YDF系列预制分支电缆设计选型要求

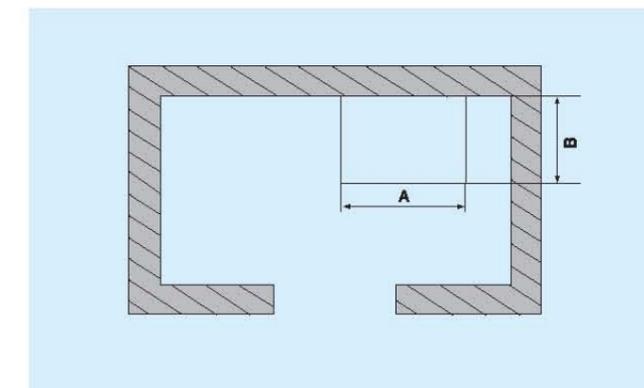
YDF Model Selection Requirements of Prefabricated Branch Cable Design

### 预制分支电缆设计选型

- 一般工作场所或一般负荷，选用“VV”型聚氯乙烯绝缘，聚氯乙烯护套预制分支电力电缆。
- 工作环境平均温度大于35℃或较大负荷，选用YJV型交联聚乙烯绝缘，聚氯乙烯护套分支电力电缆。
- 设计中要求阻燃的电气线路可选用ZR-YJV或GZR-YJV阻燃型预制分支电力电缆。
- 消防用电设备、电梯用电、应急照明用电或特殊用电等线路选用NH-YJV或SC1-FPB-CE等耐火型预制分支电力电缆。
- 主干电缆截面和分支电缆截面的选择与普通电缆相同。

### 对土建的要求

- 电气竖井内楼板开孔尺寸：  
A、楼板预留孔长度mm  
B、楼板预留孔宽度mm  
A=主干电缆根数 × 主干电缆外径 × 3  
B=主干电缆截面240mm<sup>2</sup>以下，单回路取200mm，双回路取300mm；主干电缆截面300mm<sup>2</sup>以上，单回路取300mm，双回路取500mm。
- 电缆的最小弯曲半径：  
单芯R=20D  
多芯R=15D  
R为弯曲半径，D为电缆外径。



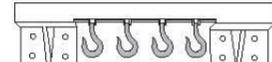
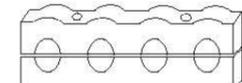
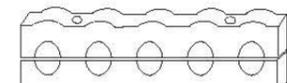
### Model selection of precast branch cable design

- Ordinary working situation or load, choose the “VV” type precast branch power cable with PVC insulator, PVC sheath.
- Average temperature of operating environment more than 35℃ or fairly large load, choose YJV type power cable with XLPE insulator and PVC sheath.
- Electrical circuit with fire-resistant design requirements can choose the fire resistant precast branch power cable. Circuits for fire equipment, emergency illumination, etc. should choose flame resistant precast branch power cable. Choose according to resistance types of power cable.
- Cross section of the main cable and the branch cable chose should be remained 30% capacity in advance and should meet the requirements of voltage drop.

### Requirements to Building

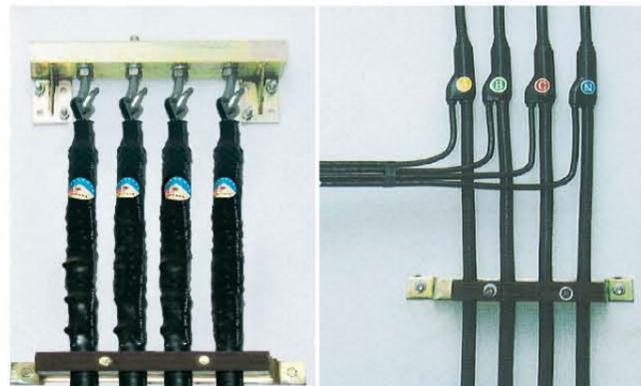
- Dimension of interior floor holes of electrical vertical bay  
A.Length of floor holes mm  
B.Width of floor holes mm  
A=number of main cable XOD of main cable X3  
B=cross section of main cable less than 240mm<sup>2</sup>, single-loop 200mm, and two-loop 300mm; cross section of main cable less than 300mm<sup>2</sup>, single loop 300mm, two-loop 500mm.
- Minimum bend radius of cable:  
Single-core R=20D  
Multiple-core R=15D  
R stands for bend radius, D stands for OD of cable

## 附件 Accessory

起吊挂具 Rise hang utensil		型号 Type	适用范围 Application (mm <sup>2</sup> )
		YDF-GJ-01	10-35
		YDF-GJ-02	50-150
		YDF-GJ-03	185-400
		YDF-GJ-04	500-630
		YDF-GJ-05	800-1200
电缆托挂架 Cable bracket			
三相四线 Three-phase four wire 	单回路 single loop	YDF-TG-11	10-35
		YDF-TG-12	50-150
		YDF-TG-13	185-400
		YDF-TG-14	500-630
		YDF-TG-15	800-1200
三相五线 Three-phase five wire 	双回路 double loop	YDF-TG-21	10-35
		YDF-TG-22	50-150
		YDF-TG-23	185-400
		YDF-TG-24	500-630
		YDF-TG-25	800-1200
固定夹具 Fixing clamping apparatus			
三相四线 Three-phase four wire 	单回路 single loop	YDF-JJ-11	10-35
		YDF-JJ-12	50-150
		YDF-JJ-13	185-400
		YDF-JJ-14	500-630
		YDF-JJ-15	800-1200
三相五线 Three-phase five wire 	双回路 double loop	YDF-JJ-21	10-35
		YDF-JJ-22	50-150
		YDF-JJ-23	185-400
		YDF-JJ-24	500-630
		YDF-JJ-25	800-1200

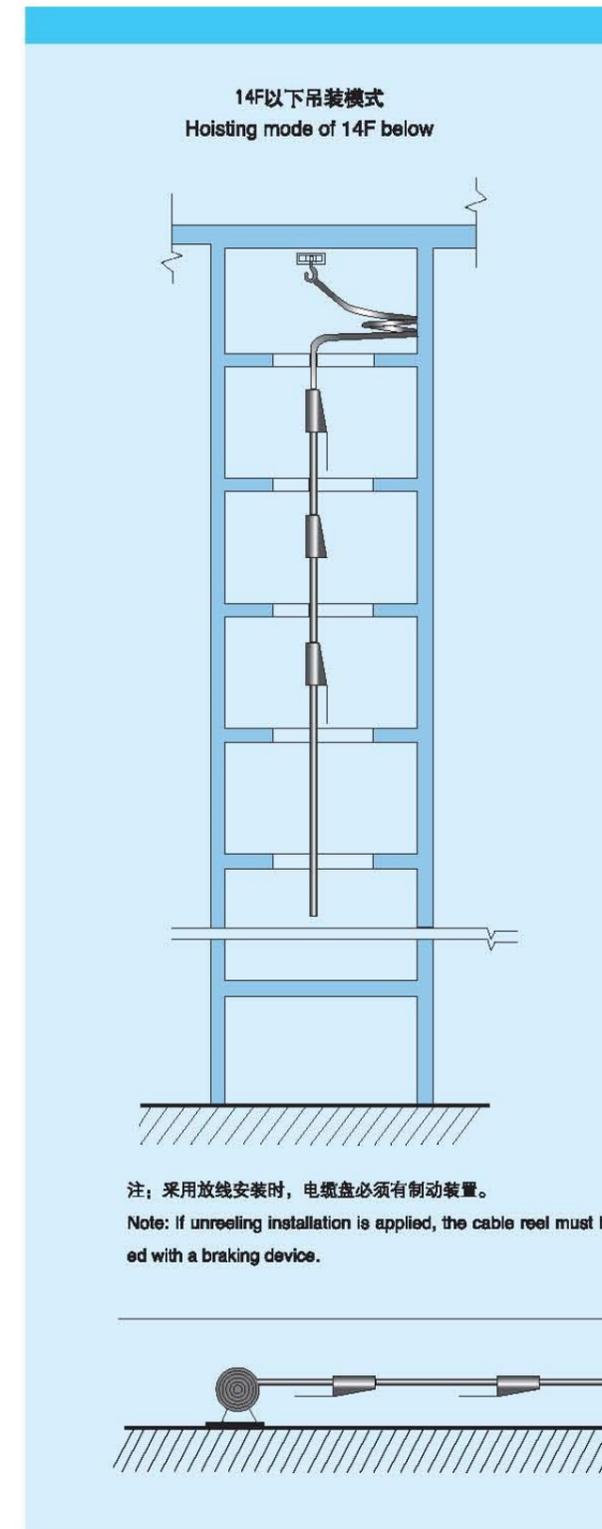
吊装环是安装在主干电缆顶端的起吊装置，只是在垂直敷设情况下起吊分支电缆时使用。完成吊装工作后，在24小时内将电缆固定在建筑物墙面上，此后吊环不再承受分支电缆的整体总重负荷。

The hoist ring is a hanging device installed on the top of main cable; it is used only when need to hoist the branch cable in case of vertical layout. When the hoisting work is finished, please fix the cable to the wall of building in 24h to free the ring from total load of branch cable.



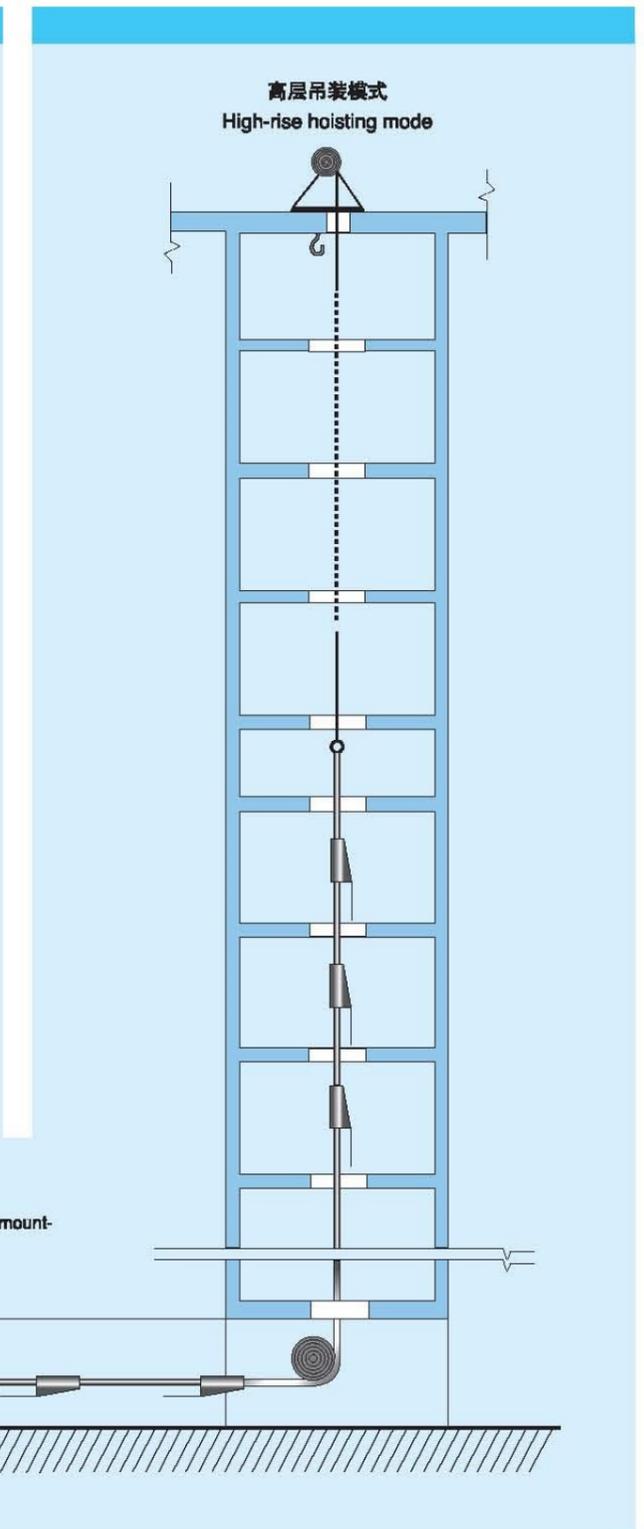
## 放装示意图

Diagrammatic Sketch of Paying off Installation



## 吊装示意图

Diagrammatic Sketch of Messenger Wire Installation



## 订货须知 Order Notice

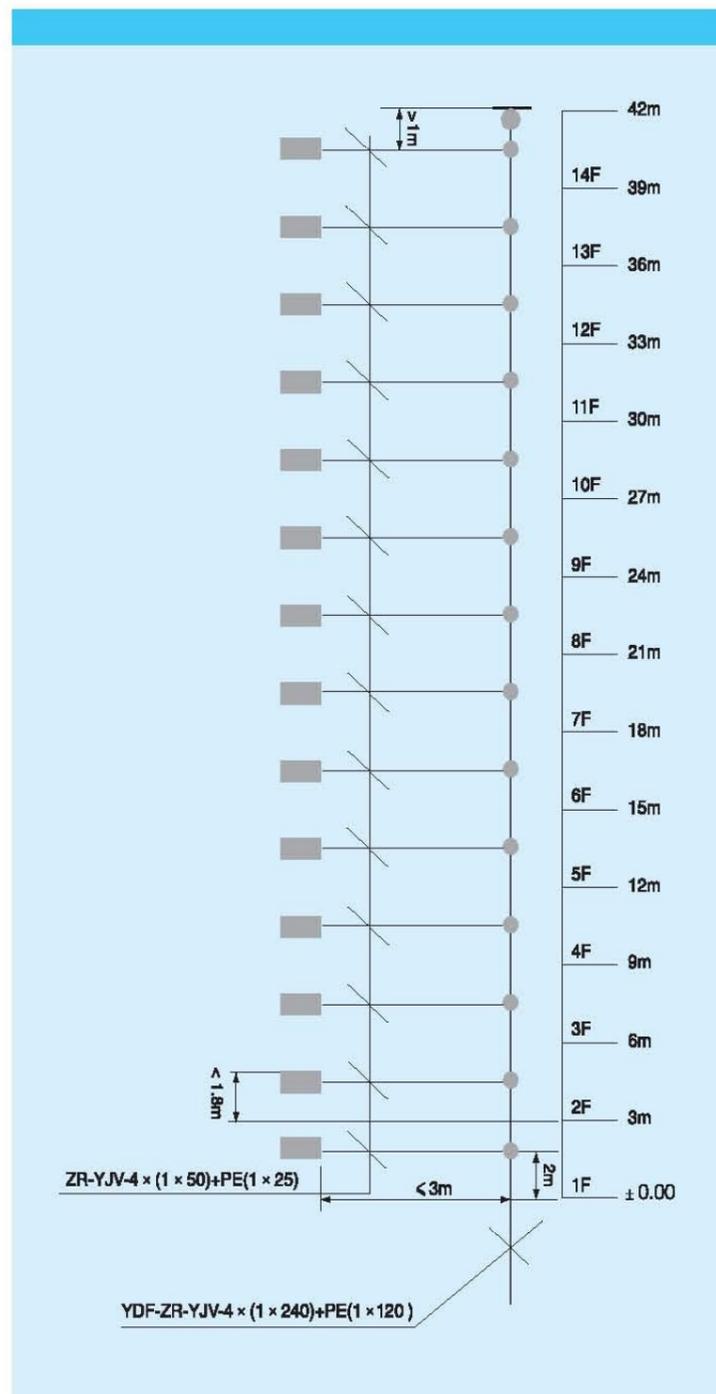
### 订货时请提供下资料

- 主电缆和各分支电缆的型号、规格、长度；
- 分支联接体离楼面的高度及分支连接的布置；
- 配电系统（单相双线、单相三线、三相三线、三相四线、三相五线）；
- 上端支承是否用起吊挂具；
- 安装方法，电缆从地面拉起或接顶放下；
- 附件：固定夹具、电缆托挂架等规格型号及数量；
- 需要其它方面的说明。

### Please supply the following information while placing an order:

- Type, specification and length of main cable and branch cable;
- Distance between branch connector and floor, and collocation of branch connection;
- Distribution system (single-phase two-wire, single-phase three-wire, three-phase three-wire, three-phase four-wire, three-phase five-wire);
- Whether the upper supporting uses lifting tool;
- Installing method: Pull up the cable or lower down from the connection point;
- Attachment: specification, type and number of fixed clamp and cable bracket;
- Other instruction required.

例图 Example diagram



## YDF-F-X系列电缆进(出)线箱

### YDF-F-X Series Cable Inlet(outlet) Box

#### 概述

YDF-F-X系列电缆进(出)线箱是YDF系列预制分支电缆的配套产品。箱体采用高强度防火材料，经进口数控机一次成型，外形美观，适应现代建筑的装饰要求。选用先进的进口电器元件，具有过载、短路、过压、漏电等保护功能。若将箱内的元器件改用过路铜排，可做过路箱用。

#### General Description

YDF-F-X series cable inlet/outlet box is a supporting product of YDF series prefabricated branch cable. The box body is made of high-strength fire proof material through once shaping technique in imported digital control machine. Applying advanced imported electric element, it owns such protection functions against overload, short-circuit and electric leakage. If change the element in the box into transit copper bar, it can serve as a transit box.



#### 内配铜排，作过路箱用参数表

With pass by copper row, the parameter form of the passing by box

	型号 Model	外形尺寸 Outline dimensions	适用范围 Applicable Range		型号 Model	外形尺寸 Outline dimensions	适用范围 Applicable Range
进 1 出 1	YDF-F-AX-1/1	250 × 400 × 600	10~120	进 3 出 1	YDF-F-AX-1/3	350 × 400 × 600	10~120
	YDF-F-BX-1/1	250 × 550 × 750	150~300		YDF-F-BX-1/3	350 × 550 × 750	150~300
	YDF-F-CX-1/1	250 × 650 × 800	400~800		YDF-F-CX-1/3	350 × 650 × 800	400~800
	YDF-F-DX-1/1	250 × 750 × 900	1000		YDF-F-DX-1/3	350 × 750 × 900	1000
进 1 出 2	YDF-F-AX-1/2	300 × 400 × 600	10~120	进 4 出 1	YDF-F-AX-1/4	400 × 400 × 600	10~120
	YDF-F-BX-1/2	300 × 550 × 750	150~300		YDF-F-BX-1/4	400 × 550 × 750	150~300
	YDF-F-CX-1/2	300 × 650 × 800	400~800		YDF-F-CX-1/4	400 × 650 × 800	400~800
	YDF-F-DX-1/2	300 × 750 × 900	1000		YDF-F-DX-1/4	400 × 750 × 900	1000

# 预制分支电缆

PREFABRICATED BRANCH CABLES

## 0.6/1KV单芯XLPE/PVC电力电缆参数

PARAMETERS OF 0.6/1KV SINGLE CORE XLPE/PVC CABLE

导线 Wire										
标称横截面积 Nom.cross section mm <sup>2</sup>	形状和结构 Structure of shape	直径 Diameter mm	绝缘厚度 Insulating thickness mm	外套厚度 Cover thickness mm	外径(约) External diameter (approx.) mm	重量(约) Weight (approx.) kg/km	交流试验电压 Ac test voltage Kv/5min	最大导线电阻(20°C) Max.wire resistance Ω/km	额定电流 Rated current A	额定电流 Rated current A
10	圆形紧密绞线 Round dense twisted line	3.7	0.7	1.4	9.0	150	3.5	1.83	85	75
16		4.7	0.7	1.4	9.5	215	3.5	1.15	113	100
25		5.9	0.9	1.4	11.5	310	3.5	0.727	150	132
35		7.0	0.9	1.4	12.0	410	3.5	0.524	181	164
50		8.5	1.0	1.4	14.0	570	3.5	0.387	228	196
70		10.1	1.1	1.4	16.0	770	3.5	0.268	290	255
95		11.7	1.1	1.5	18.0	1,030	3.5	0.193	347	310
120		13.2	1.2	1.5	20.0	1,280	3.5	0.153	410	360
150		14.7	1.4	1.6	22.0	1,590	3.5	0.124	470	419
185		16.4	1.6	1.6	24.0	1,950	3.5	0.0991	530	479
240		18.6	1.7	1.7	27.0	2,490	3.5	0.0754	640	565
300		20.8	1.8	1.8	30.0	3,140	3.5	0.0601	725	643
400		24.1	2.0	1.9	34.0	4,140	3.5	0.0470	845	771
500		26.9	2.2	2.0	37.0	5,140	3.5	0.0366	980	940
630		30.2	2.4	2.2	41.0	6,440	3.5	0.0283	1,150	1130
800		34.8	2.6	2.3	46.0	8,450	3.5	0.0221	1,380	1300
1,000	39.0	2.8	2.4	51.0	10,600	3.5	0.0176	1,605	1490	

## 0.6/1KV单芯PVC/PVC电力电缆参数

PARAMETERS OF 0.6/1KV SINGLE CORE PVC/PVC CABLE

导线 Wire										
标称横截面积 Nom.cross section mm <sup>2</sup>	形状和结构 Structure of shape	直径 Diameter mm	绝缘厚度 Insulating thickness mm	外套厚度 Cover thickness mm	外径(约) External diameter (approx.) mm	重量(约) Weight (approx.) kg/km	交流试验电压 Ac test voltage Kv/5min	最大导线电阻(20°C) Max.wire resistance Ω/km	额定电流 Rated current A	额定电流 Rated current A
10	圆形紧密绞线 Round dense twisted line	3.7	1.0	1.4	9.0	150	3.5	1.83	71	61
16		4.7	1.0	1.4	10.0	215	3.5	1.15	94	81
25		5.9	1.2	1.4	11.3	310	3.5	0.727	122	105
35		7.0	1.2	1.4	12.3	410	3.5	0.524	151	130
50		8.5	1.4	1.4	14.0	570	3.5	0.387	183	158
70		10.1	1.4	1.4	15.7	770	3.5	0.268	231	199
95		11.7	1.6	1.7	18.4	1,030	3.5	0.193	284	245
120		13.2	1.6	1.7	19.8	1,280	3.5	0.153	327	282
150		14.7	1.8	1.8	22.8	1,590	3.5	0.124	368	317
185		16.4	2.0	1.8	25.1	1,950	3.5	0.0991	437	377
240		18.6	2.2	1.8	28.5	2,490	3.5	0.0754	522	450
300		20.8	2.4	2.1	32.0	3,140	3.5	0.0601	606	522
400		24.1	2.6	2.2	35.4	4,140	3.5	0.0470	732	631
500		26.9	2.8	2.3	40.0	5,140	3.5	0.0366	854	736
630		30.2	2.8	2.4	46.0	6,440	3.5	0.0283	1024	883
800		34.8	2.8	2.6	50.0	8,450	3.5	0.0221	1206	1040
1,000	39.0	2.8	2.6	52.0	10,600	3.5	0.0176	1379	1220	

## 多芯预制分支电缆 Multi-core prefab branch cable

### VV聚氯乙烯绝缘聚氯乙烯护套4芯电力电缆参数(0.6/1kv)

VV PVC insulated PVC sheathed four-core power cable parameter (0.6/1KV)

导体标称横截面积 Nominal cross-section (mm <sup>2</sup> )	绝缘厚度 Insulating thickness (mm)	护套厚度 Sheath thickness (mm)	近似外径 Approximate outer diameter (mm)	近似重量 (kg/km) approximate weight	20°C导体最大电阻 Ω/km Maximum resistance of 20°C conductor Ω/km	额定电流A Rated current A	
						空气中40°C In the air 40°C	空气中30°C In the air 30°C
4×10	1.0	1.8	19.2	682	1.83	52	60
4×16	1.0	1.8	21.7	1010	1.15	70	80
4×25	1.2	1.8	25.9	1411	0.727	88	101
4×35	1.2	1.9	28.7	1835	0.524	110	126
4×50	1.4	1.9	30.4	2435	0.387	133	153
4×70	1.4	2.2	33.9	3271	0.268	170	196
4×95	1.6	2.3	39.7	4338	0.193	207	238
4×120	1.6	2.5	44.2	5383	0.153	240	276
4×150	1.8	2.6	48.7	6712	0.124	277	319
4×185	2.0	2.8	53.5	8207	0.0991	316	364
4×240	2.2	3.0	55.4	10850	0.0754	374	430
4×300	2.4	3.2	61.0	12948	0.0601	432	497

### VV聚氯乙烯绝缘聚氯乙烯护套4+1芯电力电缆参数(0.6/1kv)

VV PVC insulated PVC sheathed 4+1 core power cable parameter (0.6/1KV)

导体标称横截面积 Nominal cross-section (mm <sup>2</sup> )	绝缘厚度 Insulating thickness (mm)	护套厚度 Sheath thickness (mm)	近似外径 Approximate outer diameter (mm)	近似重量 (kg/km) approximate weight	20°C导体最大电阻 Ω/km Maximum resistance of 20°C conductor Ω/km	额定电流A Rated current A	
						空气中40°C In the air 40°C	空气中30°C In the air 30°C
4×10+1×6	1.0	1.8	20.3	720	1.83	52	60
4×16+1×10	1.0	1.9	23.3	1055	1.15	70	80
4×25+1×16	1.2	1.9	27.6	1578	0.727	88	101
4×35+1×16	1.2	1.9	30.3	1988	0.524	110	126
4×50+1×25	1.4	2.1	35.8	2683	0.387	133	153
4×70+1×35	1.4	2.2	39.9	3609	0.268	170	196
4×95+1×50	1.6	2.4	46.0	4836	0.193	207	238
4×120+1×70	1.6	2.5	51.0	6055	0.153	240	276
4×150+1×70	1.8	2.7	55.4	7384	0.124	277	319
4×185+1×95	2.0	2.9	61.9	9911	0.0991	316	364
4×240+1×120	2.2	3.1	69.7	12414	0.0754	374	430

# 预制分支电缆

PREFABRICATED BRANCH CABLES

## YJV交联聚乙烯绝缘聚氯乙烯护套3+1芯电力电缆参数 (0.6/1kv)

YJV XLPE insulated PVC sheathed 3+1 cores power cable parameter (0.6/1KV)

导体标称 横截面积 Nominal cross- section (mm <sup>2</sup> )	绝缘厚度 Insulating thickness (mm)	护套厚度 Sheath thickness (mm)	近似外径 Approximate outer diameter (mm)	近似重量 (kg/km) approximate weight	20℃导体最大 电阻Ω/km Maximum resistance of 20℃ conductor Ω/km	额定电流A Rated current A	
						空气中40℃ In the air 40℃	空气中30℃ In the air 30℃
						3×10+1×6	0.7/0.7
3×16+1×10	0.7/0.7	1.8	18.5	727	1.15	91	100
3×25+1×16	0.9/0.7	1.8	22.3	1092	0.727	116	127
3×35+1×16	0.9/0.7	1.8	24.8	1476	0.524	144	158
3×50+1×25	1.0/0.9	1.8	25.9	1907	0.387	174	192
3×70+1×35	1.1/0.9	1.9	29.9	2612	0.268	224	246
3×95+1×50	1.1/1.0	2.1	33.7	3489	0.193	271	298
3×120+1×70	1.2/1.1	2.2	37.5	4448	0.153	315	346
3×150+1×70	1.4/1.1	2.3	41.6	5383	0.124	363	399
3×185+1×95	1.6/1.1	2.5	46.7	6711	0.0991	415	456
3×240+1×120	1.7/1.2	2.7	51.9	8561	0.0754	490	538
3×300+1×150	1.8/1.4	2.9	57	11080	0.0601	565	620

## YJV交联聚乙烯绝缘聚氯乙烯护套4芯电力电缆参数 (0.6/1kv)

YJV XLPE insulated PVC sheathed four-cores power cable parameter (0.6/1KV)

导体标称 横截面积 Nominal cross- section (mm <sup>2</sup> )	绝缘厚度 Insulating thickness (mm)	护套厚度 Sheath thickness (mm)	近似外径 Approximate outer diameter (mm)	近似重量 (kg/km) approximate weight	20℃导体最大 电阻Ω/km Maximum resistance of 20℃ conductor Ω/km	额定电流A Rated current A	
						空气中40℃ In the air 40℃	空气中30℃ In the air 30℃
						4×10	0.7
4×16	0.7	1.8	20	879	1.15	91	100
4×25	0.9	1.8	24	1286	0.727	116	127
4×35	0.9	1.8	26	1688	0.524	144	158
4×50	1.0	1.9	28	2341	0.387	174	192
4×70	1.1	2.0	32	3175	0.268	224	246
4×95	1.1	2.1	36	4171	0.193	271	298
4×120	1.2	2.3	39	5262	0.153	315	346
4×150	1.4	2.4	44	6542	0.124	363	399
4×185	1.6	2.6	48	7893	0.0991	415	456
4×240	1.7	2.8	54	10215	0.0754	490	538
4×300	1.8	3.0	59	11643	0.0601	565	620

## YJV交联聚乙烯绝缘聚氯乙烯护套4+1芯电力电缆参数 (0.6/1kv)

YJV XLPE insulated PVC sheathed 4+1 cores power cable parameter (0.6/1KV)

导体标称 横截面积 Nominal cross- section (mm <sup>2</sup> )	绝缘厚度 Insulating thickness (mm)	护套厚度 Sheath thickness (mm)	近似外径 Approximate outer diameter (mm)	近似重量 (kg/km) approximate weight	20℃导体最大 电阻Ω/km Maximum resistance of 20℃ conductor Ω/km	额定电流A Rated current A	
						空气中40℃ In the air 40℃	空气中30℃ In the air 30℃
						4×10+1×6	0.7
4×16+1×10	0.7	1.8	21.0	911	1.15	91	100
4×25+1×16	0.9	1.8	25.0	1359	0.727	116	127
4×35+1×16	0.9	1.8	27.0	1749	0.524	144	158
4×50+1×25	1.0	1.9	32.0	2387	0.387	174	192
4×70+1×35	1.1	2.0	37.0	3280	0.268	224	246
4×95+1×50	1.1	2.2	41.0	4407	0.193	271	298
4×120+1×70	1.2	2.4	46.0	5580	0.153	315	346
4×150+1×70	1.4	2.5	50.0	7803	0.124	363	399
4×185+1×95	1.6	2.6	56.0	9158	0.0991	415	456
4×240+1×120	1.7	2.8	63.0	11850	0.0754	490	538
4×300+1×150	1.8	3.1	70.0	14321	0.0601	565	610

## 钢带铠装多芯电力电缆参数 (0.6/1KV)

标称 截面	近似外径 Approximate outer diameter(mm)								近似重量(kg/km) approximate weight							
	VV <sub>22</sub>				YJV <sub>22</sub>				VV <sub>22</sub>				YJV <sub>22</sub>			
	3+1芯	4芯	4+1芯	5芯	3+1芯	4芯	4+1芯	5芯	3+1芯	4芯	4+1芯	5芯	3+1芯	4芯	4+1芯	5芯
4	17.9	18.5	19.2	19.7	16	17	17	19.2	538	565	605	644	425	445	485	507
6	19.5	19.7	20.8	21.3	17	18	19	20.8	657	685	765	790	527	550	637	638
10	22.1	22.8	23.9	24.6	20	21	22	23.9	894	960	1052	1110	734	787	882	926
16	24.7	25.3	26.9	27.4	23	24	25	26.9	1194	1273	1482	1485	1019	1076	1208	1277
25	28.5	30.5	32.4	33.3	26	28	28	32.4	1668	1998	2312	2339	1434	1519	1713	1817
35	31.7	33.5	35.1	36.6	28	30	33	35.1	2243	2505	2756	2953	1757	1957	2152	2705
50	35	35.2	39.7	41.6	31	36	37	39.7	2852	3122	3680	3975	2229	2759	3263	3525
70	38.5	38.7	44	45.5	36	41	42	44	3657	4025	4768	5125	3386	3678	4376	4732
95	44.3	44.7	50.2	52.1	40	46	48	50.2	4796	5291	6267	6798	4397	4832	5695	6256
120	49	49.4	55.1	57.3	44	51	53	55.1	5912	6464	7689	8217	5468	5906	7129	7571
150	53.5	53.7	59.9	63.1	49	56	58	59.9	7025	7866	9216	10030	6464	7186	8282	9221
185	58.9	58.9	66.5	69.9	52	61	65	66.5	8598	9542	11293	12275	8004	8807	10287	11319
240	60.6	60	74	77.1	58	69	73	74	10631	11916	14371	15077	10140	11268	13163	14631
300	65.6	66.2	81.9	86.5	63	76	80	81.9	12913	14501	17385	19395	12445	13824	16169	17948

注：其余参数与同类(VV、YJV)、同截面、同芯数电力电缆相同。说明：VV、YJV型电缆额定电流是在以下标准敷设情况下的数据。

(1) VV塑料绝缘

a、导体最高工作温度=70℃ b、环境空气温度40℃  
c、地面温度过25℃ d、土壤热阻1.0K.m/W  
e、埋地敷设深度0.5m

(2) YJV绝缘

a、导体最高工作温度=90℃ b、环境空气温度40℃  
c、地面温度过25℃ d、土壤热阻1.0K.m/W  
e、埋地敷设深度0.5m