



国家级绿色供应链示范企业
国家级高新技术企业

电线电缆

WIRES AND CABLES

专注电力 服务全球

FOCUS ON POWER · SERVE THE WORLD

EONGE 专注电力 服务全球
FOCUS ON POWER · SERVE THE WORLD

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EONGE

公司简介 COMPANY INTRODUCTION

自1988年创立,永锦电气始终以“助力电网高效安全运行”为使命,深耕高端电气装备领域。作为国家火炬计划重点单位、国家绿色供应链示范企业,凭借国家级高新技术企业的硬核实力,成为国家电网、南方电网核心战略合作伙伴。

Shanghai Yongjin Electric Technology Co., Ltd. was founded in 1988, and has always taken "Facilitating the efficient and safe operation of power grids" as its mission, while deeply focusing on the high-end electrical equipment field. As a key unit of the National Torch Program and a demonstration enterprise of the National Green Supply Chain, relying on the solid strength of a national high-tech enterprise, it has become a core strategic partner of State Grid Corporation of China (SGCC) and China Southern Power Grid (CSG).

永锦电气构建“院士工作站&研究院+双省级研发/技术中心”创新矩阵,依托上海、台州、嘉兴三大智慧生产基地,形成“研发-智造-服务”全产业链结构;产品覆盖高低压电力电容器、1~500kV中高压电缆附件等核心领域,业务遍布全国及海外市场。

Yongjin Electric has established an innovation matrix comprising "Academician Workstations & Research Institutes, as well as two provincial-level R&D and Technology Centers". Leveraging its three smart production bases in Shanghai, Taizhou and Jiaying, the company has built a complete industrial chain integrating "R&D - Intelligent Manufacturing - Services". Its product portfolio covers core sectors including high and low voltage power capacitors and medium to high voltage cable accessories (1~500kV), with business operations spanning across domestic and overseas markets.

永锦电气深度参与国家重点工程建设,为酒泉卫星发射基地、北京奥运会、上海世博会、杭州G20峰会、北京大兴机场、白鹤滩特高压输电等标志性工程项目提供了优质产品,以“全生命周期保障体系”为电力安全保驾护航。

Yongjin Electric has played an active and pivotal role in the construction of national key projects, delivering high-quality, reliable products to numerous iconic landmark projects such as the Jiuquan Satellite Launch Center, the 2008 Beijing Olympic Games, the 2010 Shanghai World Expo, the G20 Hangzhou Summit, the Beijing Daxing International Airport, and the Baihetan UHV Power Transmission Project. It safeguards power system security through its proprietary "Full Life Cycle Support System".

展望未来,永锦电气将加速智能电网与低碳技术高效融合,致力成为电气制造与服务领域的头部企业。
Looking ahead, Yongjin Electric will continue to explore innovative approaches to integrating smart grids and low-carbon technologies. Guided by its vision to become a leading player in the niche sector, the company is committed to driving the high-quality development of the industry.

企业愿景 Corporate Vision :

成为细分领域的头部企业。

To be a top enterprise in the niche segment.

企业理念 Corporate Philosophy :

助力电网高效、安全、可靠运行。

To facilitate the efficient, safe and reliable operation of power grids.

企业价值观 Corporate Value :

客户第一,拥抱创新。团结、协作、诚信、友善、学习、进取。

Customer First, Embrace Innovation Unity, Collaboration, Integrity, Amity, Learning, Progress.

重大业绩 Corporate Resources

- 酒泉卫星发射基地
Jiuquan Satellite Launch Center
- 北京奥运会
Beijing Olympic Games
- 上海世博会
Shanghai World Expo
- 杭州G20峰会
G20 Hangzhou Summit
- 北京大兴机场
Beijing Daxing International Airport
- 特高压直流输电雅中-南昌、白鹤滩-江苏、白鹤滩-浙江、陇东-山东、哈密-重庆、陕北-安徽等标志性工程
Landmark UHVDC (Ultra-High Voltage Direct Current) transmission projects including Yazhong-Nanchang, Baihetan-Jiangsu, Baihetan-Zhejiang, Longdong-Shandong, Hami-Chongqing and Shanbei-Anhui projects

企业资源 Corporate Resources

- ① 公司核心团队由行业内知名专家、学者构成;
The core team is composed of well-known experts and scholars in the industry.
- ② 公司主要生产设备购置美国、德国、日本、瑞士等国家及地区;
The main production equipment is procured from the United States, Germany, Japan, Switzerland and etc.
- ③ 公司是电力电容器、电缆附件国家标准、行业标准的编制、修订的成员单位;
Eonge is a participating member in the formulation and revision of national and industrial standards for power capacitors and cable accessories.
- ④ 公司与国网电力科学研究院武汉分院、西安高压电器研究院、上海电缆研究所、上海电力公司松江供电公司、浙江大学等产学研单位建立了密切的科技协作关系;
Eonge has established close scientific and technological cooperation ties with industry-university-research institutions including Wuhan Branch of State Grid Electric Power Research Institute, Xi'an High Voltage Apparatus Research Institute, Shanghai Cable Research Institute, Songjiang Power Supply Company of Shanghai Electric Power Company, and Zhejiang University.
- ⑤ 公司现有上海、台州、嘉兴三大制造基地,拥有超600余名的员工和60余项的产品资质和专利
Eonge operates three major manufacturing bases in Shanghai, Taizhou and Jiaying, with a workforce of over 600 employees, as well as more than 60 product certifications and patents

企业资质

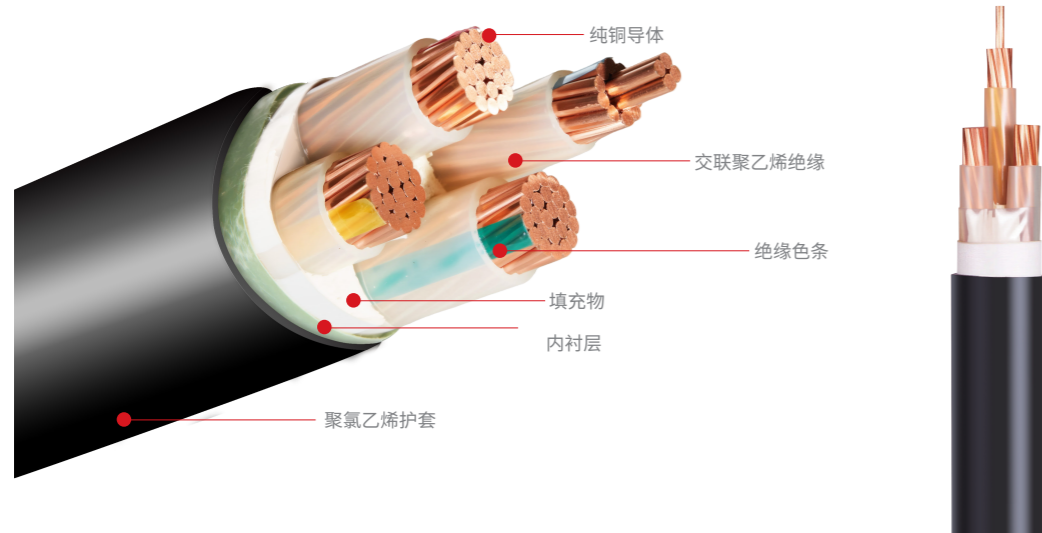
重大业绩
Major Achievements
国家级高新技术企业
National High-Tech Enterprise
国家级绿色供应链示范企业
National-level Green Supply Chain Demonstration Enterprise
国家级绿色工厂
National and Municipal-level Green Factory

省级企业技术中心
Provincial and Municipal-level Enterprise Technology Center
省级企业研发中心
Provincial and Municipal-level Enterprise R&D Center
院士专家工作站
Academician and Expert Workstation
省级重点专精特新企业
Provincial and Municipal-level Key Specialized, Sophisticated, Unique and Novel Enterprise



ISO 9001:2015质量管理体系认证
ISO 9001:2015 Quality Management System Certification
14001:2015环境管理体系认证ISO
ISO 14001:2015 Environmental Management System Certification
ISO 45001:2018职业健康安全管理体系认证
ISO 45001:2018 Occupational Health and Safety Management System Certification

ISO 50001:2018能源管理体系认证
ISO 50001:2018 Energy Management System Certification
ISO 14067-2018 : 温室气体 产品碳足迹 量化要求和指南
ISO 14067:2018 Greenhouse Gases - Carbon Footprint of Products - Requirements and Guidelines for Quantification



电缆敷设运行条件 Cable Installation & Operation Conditions

在空气中 In the air

- 单芯电缆平行敷设时中心距离:185mm及以下为电缆直径的2倍;240mm及以上为90mm。
The distance between cable centers of single-core cables laid in parallel :
Conductor cross-sectional area $\leq 185\text{mm}^2$:2times the cable diameter ;Conductor cross-sectional area $\geq 240\text{mm}^2$:90mm
- 周围环境空气温度:40°C。
Ambient air temperature:40°C。
- 导体的长期最高工作温度:90°C
Conductor's long-term max operating temp:90°C

不同环境温度下载流量的修正系数:
Ampacity correction factor (ambient temp-dependent)

环境温度 Ambient air temperature	20°C	25°C	30°C	35°C	40°C	45°C
修正系数 Correction factor	1.09	1.04	1.00	0.95	0.94	0.84

直埋敷设 Directly Burial Installation

- 单芯电缆不接触敷设时电缆中心距离为电缆直径的2倍。
Single-core cables (non-contact laying): Center-to-center distance = 2 x cable OD
- 土壤温度:25°C。
Soil temperature:25°C。
- 导体的长期最高工作温度:90°C。
Conductor's long-term max operating temp: 90°C
- 土壤热阻系数:1.0°C.m/W。
Soil Thermal Resistivity:1.0°C.m/W
- 直埋深度:0.7m。
Direct Burial Depth:0.7m

不同土壤温度下载流量的修正系数:
Ampacity Correction Factor (Soil Temp-Dependent)

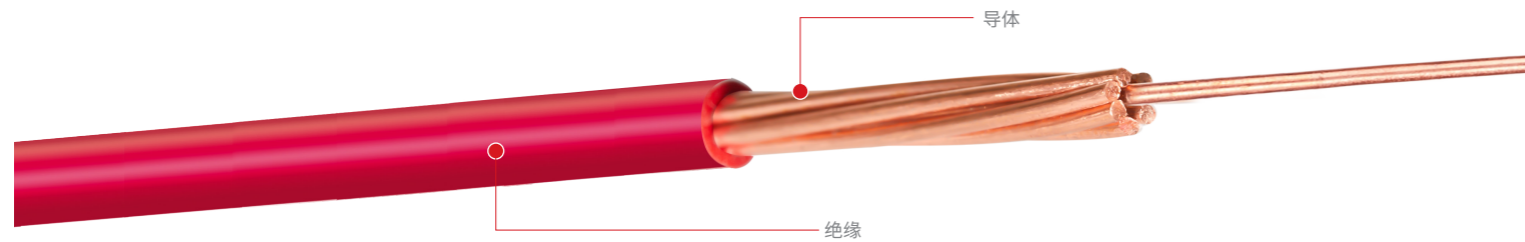
土壤温度 Soil temperature	20°C	25°C	30°C	35°C	40°C
修正系数 Correction factor	1.04	1.0	0.96	0.92	0.87

执行标准 Execution Standard

- 《GB/T 12706.1-2020》额定电压1 kV(U₀=1.2 kV)到35 kV(U₀=40.5kV)挤包绝缘电力电缆及附件第1部分:额定电压1kV(U=1.2 kV)和3 kV(U₀=3.6 kV)电缆;
"GB/T 12706.1-2020" Power Cables with Extruded Insulation and Their Accessories for Rated Voltages from 1 kV (U₀=1.2 kV) up to 35 kV (U₀=40.5 kV) - Part 1: Cables for Rated Voltages of 1 kV (U₀=1.2 kV) and 3 kV (U₀=3.6 kV)
- 《GB/T19666-2019》阻燃和耐火电线电缆或光缆通则;
"GB/T19666-2019" General Rules for Flame Retardant and Fire-Resistant Wire and Cable or Optical Cable;
- 《GB/T31840.1-2015》额定电压1 kV(U₀=1.2 kV)到35 kV(U₀=40.5 kV)铝合金芯挤包绝缘电力电缆第1部分:额定电压1 kV(U₀=1.2 kV)和3 kV(U₀=3.6 kV)电缆;
"GB/T31840.1-2015" Aluminium alloy conductor extruded insulated power cables with rated voltages from 1 kV (U₀=1.2 kV) to 35 kV (U₀=40.5 kV) - Part 1: Cables with rated voltages of 1 kV (U₀=1.2 kV) and 3 kV (U₀=3.6 kV);

电缆型号 Cable Models

型号 Model	名称 Name	适用范围 Application
VV	铜芯聚氯乙烯绝缘聚氯乙烯护套电力电缆 Copper conductor , PVC insulated , PVC sheathed electrical cable.	室内、隧道及电缆沟等场所,不能承受机械外力。单芯电缆不允许敷设在磁性管道中。 For laying indoors 、in tunnels or cable trench, unable to bear external mechanical forces.Single-core cable in magnetic ductis not permissible.
VLV	铝芯聚氯乙烯绝缘聚氯乙烯护套电力电缆 Aluminum conductor , PVC insulated PVC sheathed electrical cable.	
YJV	铜芯交联聚乙烯绝缘聚氯乙烯护套电力电缆 Copper conductor,XLPE insulated,PVC sheathed electrical cable.	
YJLV	铝芯交联聚乙烯绝缘聚氯乙烯护套电力电缆 Aluminum conductor,XLPE insulated,PVC sheathed Electrical cable.	
YJLHV	铝合金芯交联聚乙烯绝缘聚氯乙烯护套电力电缆 Aluminum alloy core XLPE insulated PVC sheathed power cable	
VV22	铜芯聚氯乙烯绝缘钢带铠装聚氯乙烯护套电力电缆 Copper conductor , PVC insulated , steel tape armoured ,PVC sheathed electrical cable.	室内、隧道、电缆沟内或埋地敷设等,能承受一定的机械外力。但不能承受大的拉力。 For laying indoors, in tunnel, in cable trench or direct buried ,able to bear external mechanical forces , but unable to bear large pull-ing force.
VLV22	铝芯聚氯乙烯绝缘钢带铠装聚氯乙烯护套电力电缆 Aluminum conductor , PVC insulated, steel tape armoured , PVC sheathed electrical cable.	
YJV22	铜芯交联聚乙烯绝缘钢带铠装聚氯乙烯护套电力电缆 Copper conductor,XLPE insulated,steel tape armoured,PVC sheathed Electrical cable.	
YJLV22	铝芯交联聚乙烯绝缘钢带铠装聚氯乙烯护套电力电缆 Aluminum conductor,XLPE insulated,steel tape armoured,PVC sheathed power cable.	
YJLHV22	铝合金芯交联聚乙烯绝缘钢带铠装聚氯乙烯护套电力电缆 Aluminum alloy core XLPE insulated steel tape armored PVC sheathed power cable.	
WDZ-YJY	铜芯交联聚乙烯绝缘低烟无卤聚烯烃护套电力电缆 Copper-core XLPE insulated low-smoke zero-halogen polyolefin sheathed power cable.	在火焰燃烧情况下产生极少量烟雾,释放的气体不含卤(低卤)元素,无毒(低毒)。当火灾发生时可大大减少对仪器、设备和人体的危害,因而被广泛应用于高层建筑、医院、大型图书馆或人口密集的公共场所。 In the event of a fire, it produces minimal smoke and releases gases that are free of halogen (low-halogen) elements and non-toxic (low-toxicity). This significantly reduces the harm to instruments, equipment, and human bodies in case of a fire. Therefore, it is widely used in high-rise buildings, hospitals, large libraries, or densely populated public places.
WDZ-YJY23	铜芯交联聚乙烯绝缘钢带铠装低烟无卤聚烯烃护套电力电缆 Copper-core XLPE insulated steel tape armored low-smoke zero-halogen polyolefin sheathed power cable.	



生产条件

Reference Standards

本产品按 GB/T5023《额定电压450/750V及以下聚氯乙烯电缆》、JB/T8734《额定电压450/750V及以下聚氯乙烯绝缘电线电缆和软线》标准生产，同时还可根据用户需要按国际电工委员会推荐标准60227IEC、英国标准、德国标准及美国标准生产。
The product is manufactured according to the standards of GB/T5023 and JB/T8734 or 60227IEC,BS,DIN and ICEA upon request.

适用范围

Application

本产品分别适用于额定电压450/750V及以下的动力装置、固定布线及挠性连接电器之用。
The product is suitable for power installation, fixed wiring or flexible connections for electrical appliances with rated voltage up to and including 450/750V.

使用特性

Operating Characteristics

额定电压 U_0/U 为450/750V、300/500V和300/300V。
Rated voltage U_0/U :450/750V、300/500V and 300/300V

- 电缆导体的允许长期最高工作温度: 70°C
Max. permissible continuous operating temperature of the conductor: 70°C
- 电缆敷设时环境温度应不低于0°C
The ambient temperature during cable laying shall not be lower than 0°C.
- 电缆弯曲半径:
Cable bending radius

$D \leq 25\text{mm}$>4D

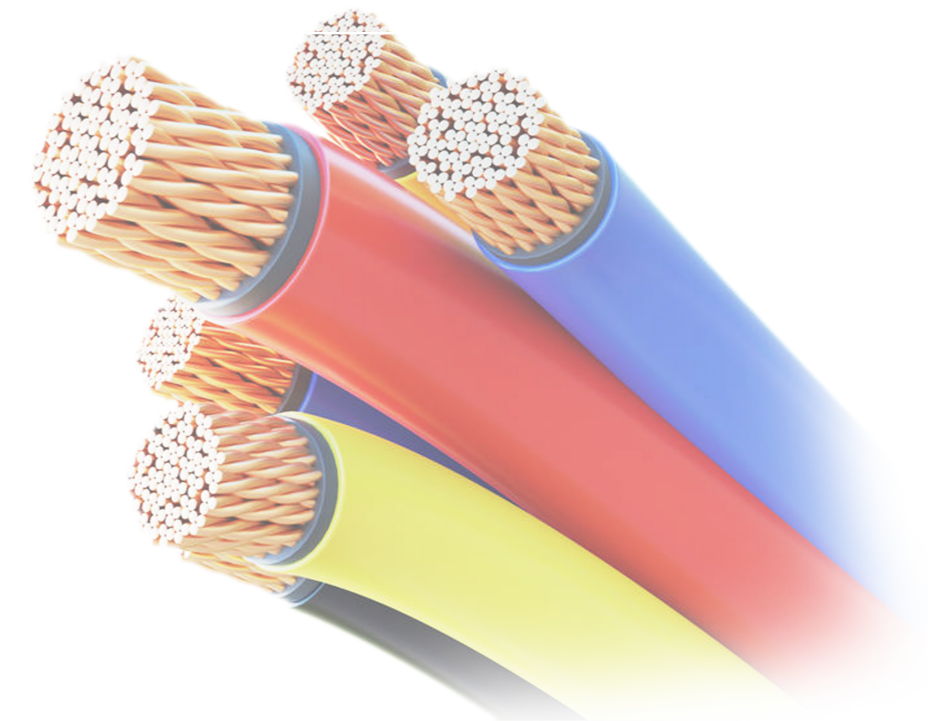
$D > 25\text{mm}$ $\geq 6D$

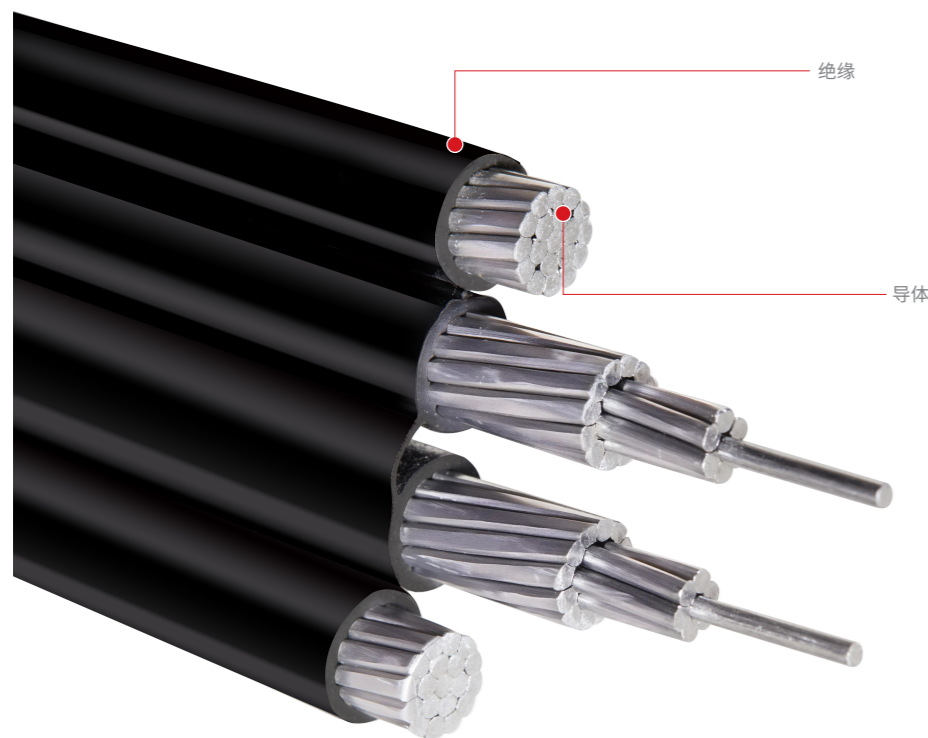
(D-电缆外径 Diameter of the cable)

电缆型号

Cable Models

型号 Type	名称 Name
60227 IEC 01(BV)	一般用途单芯硬导体无护套电缆 Single-core non-sheathed cable with solid conductor for general purposes
60227 IEC 05(BV)	内部布线用导体温度为70°C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 : 70°C)
60227 IEC 52(RVV)	轻型聚氯乙烯护套软线 Light PVC sheathed flexible cord
60227 IEC 53(RVV)	普通聚氯乙烯护套软线 Ordinary PVC sheathed flexible cord
BV	铜芯聚氯乙烯绝缘电线 Copper conductor PVC insulated wire
BLV	铝芯聚氯乙烯绝缘电线 Aluminum conductor PVC insulated wire
BVR	铜芯聚氯乙烯绝缘软电缆 Copper conductor PVC insulated flexible cable
BVV	铜芯聚氯乙烯绝缘聚氯乙烯护套圆形电缆 Copper conductor PVC insulated and sheathed round cable
BVVB	铜芯聚氯乙烯绝缘聚氯乙烯护套扁形电缆 Copper conductor PVC insulated and sheathed flat cable
BLVVB	铝芯聚氯乙烯绝缘聚氯乙烯护套扁形电缆 Aluminum conductor PVC insulated and sheathed flat cable
RVS	铜芯聚氯乙烯绝缘绞型连接用软电线 Copper conductor PVC insulated twisted flexible cord for connection





电缆型号 Cable Models

型号 Model	芯数 Number of cores	截面 Cross-section	名称 name
BS1-JKV, BS1-JKY, BS1-JKYJ BS1-JKLV, BS1-JKLY, BS1-JKLYJ	4	10-120mm ²	铜/铝芯平行集束架空绝缘电缆 Copper/Aluminum core parallel bundled aerial insulated cable
BS2-JKV, BS2-JKY, BS2-JKYJ BS2-JKLV, BS2-JKLY, BS2-JKLYJ	3+1	10-120mm ²	
BS1-JKV, BS1-JKY, BS1-JKYJ BS1-JKLV, BS1-JKLY, BS1-JKLYJ	3	16-70 mm ²	
BS2-JKV, BS2-JKY, BS2-JKYJ BS2-JKLV, BS2-JKLY, BS2-JKLYJ	2+1	16-70 mm ²	
BS1-JKV, BS1-JKY, BS1-JKYJ BS1-JKLV, BS1-JKLY, BS1-JKLYJ	2	4-120mm ²	

用途 Usage

本产品适用于交联额定电压U(Um)为0.6/1KV的架空电力线路
The product is suitable for AC overhead power lines with rated voltage U(Um)=0.6/1kV

产品标准 Product Standard

Q/GDW 10176-2017架空平行集束绝缘导线低压配电线路设计规程
Q/GDW 10176-2017 Design Code for Low-Voltage Distribution Lines Using Aerial Parallel Bundled Insulated Conductors

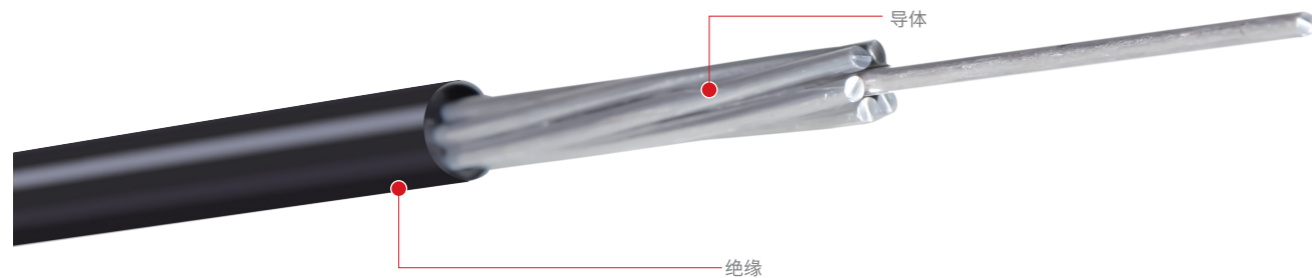
使用条件 Operating Conditions

电缆导体的最高长期允许工作温度为90°C。
long-term maximum permissible operating temperature shall not be exceed 90°C。

敷设温度不低于-20°C。
The ambient temperature during installation shall not be lower than -20°C.

短路时(最长持续时间不超过5秒)导体的最高温度应不大于250°C。
In case of short circuit (maximum duration not exceeding 5s), the maximum temperature of the conductor shall not exceed 250°C.





产品简介

Introduction

本产品是在紧压的铜、铝导体外挤制耐候交联聚乙烯或耐候型黑色高密度聚乙烯或耐候型聚氯乙烯绝缘层，结构简单、安全可靠，同时又具有优良的机械物理性能和电气性能，耐电痕、耐沿面放电、耐大气性能优良，与裸电线相比，敷设间隙小，节约线路走廊，线路电压降减小，尤其是减少供电事故发生，确保人生安全。

This product is manufactured by extruding a weather-resistant cross-linked polyethylene, weather-resistant black high-density polyethylene, or weather-resistant polyvinyl chloride insulation layer over compacted copper or aluminum conductors. It boasts a simple, safe, and reliable structure, while also exhibiting excellent mechanical and electrical properties. It is resistant to electrical tracking, surface discharge, and atmospheric conditions. Compared to bare wires, it requires smaller laying gaps, saves line corridors, reduces line voltage drop, and especially reduces the occurrence of power supply accidents, ensuring personal safety.

产品标准

Product Standard

本产品按GB/T12527进行生产。

The product is manufactured in accordance with GB/T 12527.

适用范围

Applications

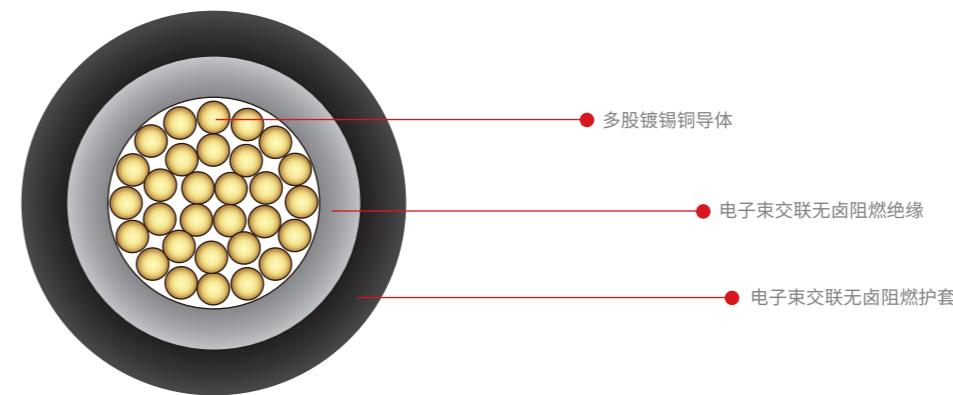
本产品适用于高层建筑群、旅游开发区及树木多地区的1kV架空输电线路。

The product is suitable for 1kV overhead power transmission and distribution lines in high-rise building clusters, tourism development zones and wooded areas.

电缆型号

Cable Models

型号 Model	名称 Name	主要用途 Main Usage
JKV	额定电压 0.6/1kV铜芯聚氯乙烯绝缘架空电缆 Copper conductor,PVC insulated,aerial cable for rated voltage 0.6/1kV	架空固定敷设引户线等 The cable is suitable for overhead fixed installation,service lines,etc.
JKLV	额定电压 0.6/1kV铝芯聚氯乙烯绝缘架空电缆 Aluminum conductor,PVC insulated,aerial cable for rated voltage 0.6/1kV	
JKY	额定电压 0.6/1kV铜芯聚乙烯绝缘架空电缆 Copper conductor,PE insulated,aerial cable for rated voltage 0.6/1kV	
JKLY	额定电压 0.6/1kV铝芯聚乙烯绝缘架空电缆 Aluminum conductor,PE insulated,aerial cable for rated voltage 0.6/1kV	
JKYJ	额定电压 0.6/1kV铜芯交联聚乙烯绝缘架空电缆 Copper conductor,XLPE insulated,aerial cable for rated voltage 0.6/1kV	
JKLYJ	额定电压 0.6/1kV铝芯交联聚乙烯绝缘架空电缆 Aluminum conductor,XLPE insulated,aerial cable for rated voltage 0.6/1kV	



产品概述

Product Overview

光伏专用电缆是应用于太阳能光伏发电系统组件间连接、组件与逆变器连接的专用线缆。其核心使命是在恶劣的户外环境(如高温、紫外线、臭氧、酸雨、潮湿、宽温差等)下,长期安全可靠地传输光伏系统所产生的直流电能。

PV-specific cables are specialized cables used for connections between components in solar photovoltaic power generation systems, as well as for connecting components to inverters. Their core mission is to ensure the long-term, safe, and reliable transmission of DC power generated by the photovoltaic system under harsh outdoor conditions, such as high temperatures, UV exposure, ozone, acid rain, humidity, and wide temperature fluctuations.

产品型号与规格

Product models and specifications

型号 Model	名称 Name	对应标准 Corresponding Standard	主要特点 Main Features
PV1-F	kV及以下光伏系统用无卤柔性电缆 Halogen-free flexible cables for PV systems 1kV and below	2 PFG 1169/08.2007	国际电工委员会标准型号,性能与PV1-F类似。 IEC standard model, performance similar to PV1-F
H1Z2Z2-K	耐日光型无卤直流电缆 Sunlight-resistant halogen-free DC cable	IEC 62930	

产品结构

Product Structure

光伏电缆采用双层无卤辐照交联绝缘护套结构,确保其卓越的性能。

PV cables adopt a double-layer halogen-free irradiated cross-linked insulation sheath structure, ensuring excellent performance.

● 导体:

采用镀锡铜丝精绞而成。镀锡处理能有效防止铜导体氧化和腐蚀,增强耐久性。导体符合第5类软导体标准,极其柔软,便于安装和敷设。

Conductor: Made of finely twisted tinned copper wire. Tin plating effectively prevents oxidation and corrosion of the copper conductor, enhancing durability. The conductor complies with Class 5 soft conductor standards, featuring excellent flexibility for easy installation and laying.

● 绝缘层:

采用优质无卤辐照交联聚烯烃材料

通过电子辐照加速器进行交联处理,使线性分子结构变为三维网状结构,从而具有优异的耐热性(-40°C ~ +120°C)、抗老化性和机械强度。

Conductor: Made of finely twisted tinned copper wire. Tin plating effectively prevents oxidation and corrosion of the copper conductor, enhancing durability. The conductor complies with Class 5 soft conductor standards, featuring excellent flexibility for easy installation and laying.

● 绝缘层:

同样采用无卤辐照交联聚烯烃材料护套经过特殊配方设计, 添加了高性能抗紫外线和抗臭氧剂, 能有效抵抗阳光直射和恶劣天气, 保护电缆内部结构不受损害。同样具有阻燃、耐油、耐化学腐蚀的特性。

Sheath Layer: Also made of halogen-free irradiation cross-linked polyolefin material. The sheath is specially formulated with high-performance UV-resistant and ozone-resistant additives, effectively resisting direct sunlight and harsh weather to protect the internal structure of the cable from damage. It also has the characteristics of flame retardant, oil resistant, and chemical corrosion-resistant properties.

电缆型号

Cable Models

导体截面 Conductor cross-section	绝缘标称厚度 Nominal insulation thickness	护套标称厚度 Nominal sheath thickness	20°C时最小绝缘电阻 Minimum insulation resistance at 20°C	90°C时最小绝缘电阻 Minimum insulation resistance at 90°C
mm ²	mm	mm	MΩ.km	MΩ.km
1.5	0.7	0.8	860	0.86
2.5	0.7	0.8	690	0.69
4	0.7	0.8	580	0.58
10	0.7	0.8	500	0.50
10	0.7	0.8	420	0.42
16	0.7	0.9	340	0.34
25	0.9	1.0	340	0.34
35	0.9	1.1	290	0.29
50	1.0	1.2	270	0.27
70	1.1	1.2	250	0.25
95	1.1	1.23	220	0.22
120	1.2	1.3	210	0.21
150	1.4	1.4	210	0.21
185	1.6	1.6	200	0.20
240	1.7	1.7	200	0.20



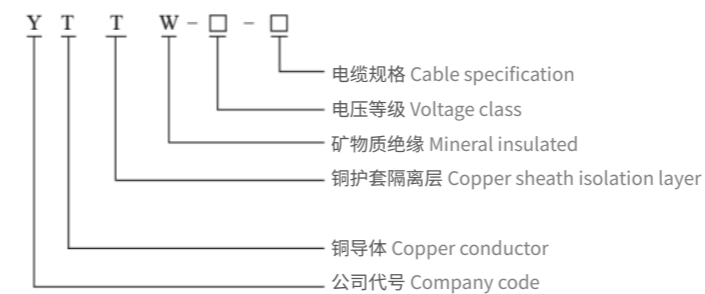
YTTW(BTTE, BTTRZ)防火电缆的结构

Structure of YTTW(BTTE, BTTRZ) Fire-resistant Cables

- 电缆导体: 有多股铜线绞合而成, 具有良好的弯曲特性。
Cable Conductor: Composed of stranded copper wires, featuring good flexibility.
- 绝缘层: 采用无机矿物质绝缘材质。
Insulation Layer: Made of inorganic mineral insulation material.
- 铜护套: 采用铜质软护套, 经特殊工艺加工处理, 具有良好的导电性能、抗机械冲击力、柔性弯曲等特性(可代替地线)。
Copper Sheath: A flexible copper sheath processed via special technology, featuring good electrical conductivity, excellent mechanical impact resistance and flexibility property (can be used to replace the ground wire).
- 外护套: 采用低烟无毒或更好更高的塑性材质, 有良好的防腐特性, 可根据要求选择不同标号的材料(可选)。
Outer Sheath: Made of low-smoke nontoxic or higher-quality plastic materials, featuring good corrosion resistance. Materials of different grades can be selected as required (optional).

YTTW(BTTE)防火电缆型号

Model of YTTW(BTTE) fireproof cable



产品材料特性代号 Material characteristic code:
 铜导体 Copper conductor----- (T)省略Omitted
 铝导体 Aluminum conductor----- L
 铜护套 Copper sheath----- T
 铝护套 Aluminum sheath----- L
 低烟无卤 LSOH-WD----- WD
 阻燃 Flame retardant----- ZA
 耐火 Fire resistant----- NH
 控制电缆 Control cable----- K

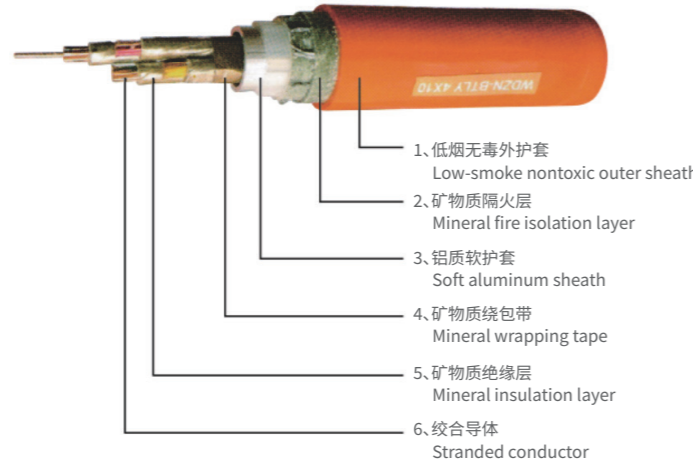
例1: YTTW(BTTE)-0.6/1KV-4x240+1x120mm²
 表示: 5芯0.6/1KV, 4根240mm²截面1根120mm²的防火电缆。
 例2: WDZAN-YTTW(WDZAN-BTTE)-0.6/1KV-4x120mm²
 表示: 4芯0.6/1KV 120mm²截面的防火电缆。

E. g1: YTTW(BTTE)-0.6/1KV-4x240+1x120mm²
 It means fireproof cable of 5-core 0.6/1KV, 4pcs of 240mm² in sectional area and 1pcs of 120mm²
 E. g2: WDZAN-YTTW(WDZAN-BTTE)-0.6/1KV-4x120mm²
 It means fireproof cable 4-core 0.6/1KV and 120mm² in sectional area.

BTLY(BTLE)防火电缆的结构

Structure of BTLY(BTLE) Fire-resistant Cables

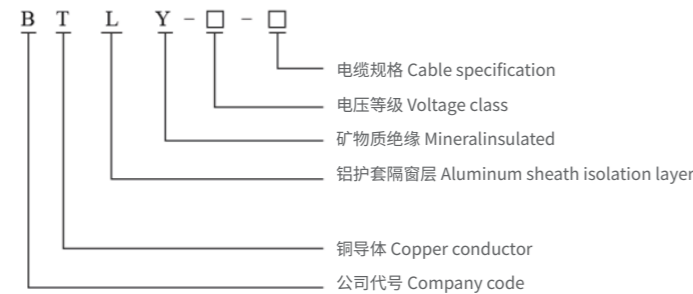
- 电缆导体:有多股铜线绞合而成,具有良好的弯曲特性。
Cable Conductor:Composed of stranded copper wires, featuring good flexibility.
- 绝缘层:采用无机矿物质绝缘材质。
Insulation Layer:Made of inorganic mineral insulation material.
- 铝护套:采用铝质软护套,经特殊工艺加工处理,具有良好的导电性能、抗机械冲击力、柔性弯曲等特性(可代替地线)。
Aluminum Sheath:A flexible aluminum sheath processed via special technology, featuring good electrical conductivity, excellent mechanical impact resistance and flexibility (can be used to replace as a ground wire).
- 外护套:采用低烟无毒或更好更高的塑型材质,有良好的防腐特性,可根据要求选择不同标号的材料(可选)。
Outer Sheath:Made of low-smoke nontoxic or higher-quality plastic materials, featuring good corrosion resistance. Materials of different grades can be selected as required (optional).



铝护套(柔性)隔离型防火电缆
Aluminum sheathed (flexible) fireproof cable of isolated type

BTLY (BTLE)防火电缆型号

Structure of BTLY(BTLE) Fire-resistant Cables



产品材料特性代号 Material characteristic code:
铜导体 Copper conductor----- (T)省略Omitted
铝导体 Aluminum conductor----- L
铜护套 Copper sheath----- T
铝护套 Aluminum sheath----- L
低烟无卤 LSOH-WD----- WD
阻燃 Flamc rctardant----- ZA
耐火 Fire resistant----- NH
控制电缆 Control cable----- K

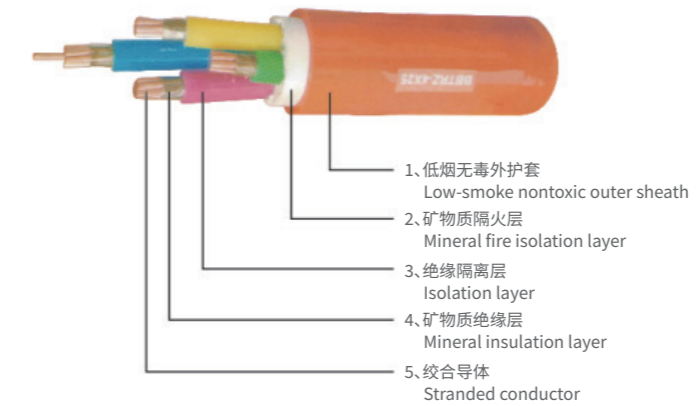
例1: BTLY(BTLE)(WDZAN)-0.6/1KV-3x240+2x120mm²
表示:5芯0.6/1KV,3根240mm²截面2根120mm²的防火电缆。
例2: BTLY(BTLE)(WDZAN)-0.6/1KV-4x120mm²
表示:4芯0.6/1KV120mm²截面的防火电缆。

E.g1: BTLY(BTLE)(WDZAN)-0.6/1KV-3x240+2x120mm²
It means fireproof cable of 5-core 0.6/1KV,3pcs of 240mm² in sectional area and 2pcs of 120mm²
E.g2: WDZAN-BTLY(BTLE)-0.6/1KV-4x120mm²
It means fireproof cable of 4-core 0.6/1KV and 120mm² in sectional area.

BBTRZ 防火电缆的结构

BBTRZ Fire-resistant Cables

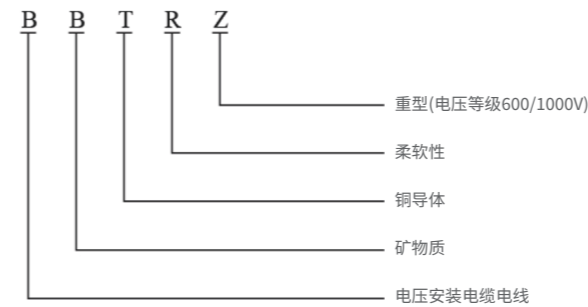
- 电缆导体:有多股铜线绞合而成,具有良好的弯曲特性。
Cable Conductor:Composed of stranded copper wires, featuring good flexibility.
- 绝缘层:采用矿物质绝缘材质,可耐温到1000度以上。
Insulation Layer: Made of mineral insulation materials, with a temperature resistant of over 1000°C.
- 防水隔离层:采用聚乙烯隔离材质。
Waterproof Isolated Layer:Made of polyethylene isolation materials.
- 矿物质填充层:采用国内外先进纳米技术研制的具有防火、耐火、耐高温、隔温、隔热等优点的无机矿物质材料。
Mineral Filling Layer: Made of inorganic minerals developed using advanced domestic and international nanotechnology, featuring fire resistance,high-temperature resistance and thermal insulation.
- 外护套:采用低烟无毒或更好更高的塑型材质,有良好的防腐特性,可根据要求选择不用型号的材料(可选)。
Outer Sheath:Made of low-smoke nontoxic or higher-quality plastic materials, featuring good corrosion resistance,materials of different models can be selected as required (optional).



(柔性)矿物质绝缘防火电缆
(flexible) mineral insulated fireproof cable

BBTRZ 防火电缆的结构

BBTRZ Fire-resistant Cables



产品材料特性代号 Material characteristic code:
铜导体 Copper conductor----- (T)省略Omitted
铝导体 Aluminum conductor----- L
铜护套 Copper sheath----- T
铝护套 Aluminum sheath----- L
低烟无卤 LSOH-WD----- WD
阻燃 Flamc rctardant----- ZA
耐火 Fire resistant----- NH
控制电缆 Control cable----- K

例1: BBTRZ(WDZAN)-0.6/1KV-3x240+2x120mm²
表示:5芯0.6/1KV,3根240mm²截面2根120mm²的防火电缆。
例2: BBTRZ(WDZAN)-0.6/1KV-4x120mm²
表示:4芯0.6/1KV120mm²截面的防火电缆。

E. g1: BBTRZ-0.6/1KV-3x240+2x120mm²
It means fireproof cable of 5-core 0.6/1KV, 3pcs of 240mm² in sectional area and 2pcs of 120mm²
E. g2: WDZAN-BBTRZ-0.6/1KV-4x120mm²
It means fireproof cable of 4-core 0.6/1KV and 120mm² in sectional area.

刚性矿物绝缘电缆产品概述

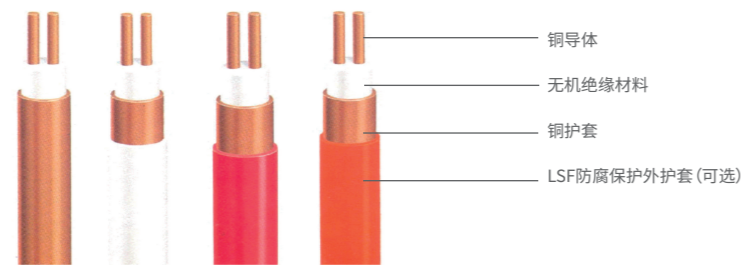
Overview of Rigid Mineral Insulated Cables

BTTZ:采用无缝铜管金属套+氧化镁矿物绝缘,又称刚性矿物绝缘电缆,型号有BTTVZ、BTTYZ、BTTQ、BTTVQ、BTTYQ等

BTTZ: Using seamless copper tube metal sheath + magnesium oxide mineral insulation, also known as rigid mineral insulated cable; available models include BTTVZ, BTTYZ, BTTQ, BTTVQ, BTTYQ, etc.

矿物质电缆产品特性

Characteristics of Mineral Insulated Cables



● 防火 Fire Resistance

电缆全都是用无机物(金属铜和氧化镁粉)组成,它本身不会引起火灾,不可能燃烧或助燃,由于铜的熔点是1083°C,矿物绝缘层也是1000°C以上熔点。因此该种电缆可以在接近铜的熔点的火灾情况下继续保持供电,是一种真正意义上的防火电缆。并能通过BS6387C、W、Z试验。

Mineral mineral insulated cables are entirely composed of inorganic materials (metallic copper and magnesium oxide powder), they do not cause fires, nor can they burn or support combustion. The melting point of copper is 1083°C, and the mineral insulation layer also has a melting point above 1000°C. Therefore, such cables can continue to supply power in fires approaching the melting point of copper, making them truly fire-resistant cables. They can pass the BS6387 C, W, and Z tests.

● 载流量大、防水 High Ampacity and Water Resistance

矿物绝缘电缆实际正常使用温度可以达到250°C,IEC60702规定矿物绝缘电缆连续工作温度是105°C,这是考虑到终端密封材料和安全的需要,即使这样,它的载流量还远远超过其他电缆,因为矿物类绝缘具有比塑料更好的导热系数,所以同样的工作温度,载流量更大。对于16mm²以上的线路,可以降低一个截面,对不允许人接触的地方,可以降低两个截面。

The actual normal operating temperature of mineral insulated cables can reach 250°C, while IEC 60702 stipulates their continuous operating temperature as 105°C (considering the requirements of terminal sealing materials and safety). Even so, their ampacity is much higher than that of other cables because mineral insulation has a better thermal conductivity than plastic, resulting in higher ampacity at the same operating temperature. For cables with a cross-section larger than 16mm², the cross-section can be reduced by one grade; for areas where human contact is prohibited, it can be reduced by two grades.

● 防爆防腐 Explosion-Proof and Corrosion-Resistant

防爆特性:矿物绝缘电缆采用金属护套作为保护层,可燃性气体、油气、火焰就不能到达与电缆连接的电气设备,因此电缆具备防爆特性。耐腐蚀性:铜有较好的耐蚀性,在正常使用的环境下不需要任何附加的保护,在特殊的环境条件下,如对铜有较强的腐蚀作用的环境中,电缆外面再加一层PVC外护套,所以电缆有很好的耐腐蚀性。

Explosion-Proof Performance: Mineral insulated cables use a metal sheath as a protective layer, preventing flammable gases, oil vapor, and flames from reaching the electrical equipment connected to the cables, thus providing explosion-proof performance. Corrosion Resistance: Copper has good corrosion resistance, so no additional protection is required under normal operating conditions. In special environments with strong corrosive effects on copper, an additional PVC outer sheath can be added to the cable, ensuring excellent corrosion resistance.

● 耐机械损伤、寿命长、无卤无毒 Mechanical Damage Resistance, Long Service Life, and Halogen-Free & Non-Toxic

耐机械损伤:由于电缆的金属护套有一定的强度和韧性,所以电缆在遭受弯曲、压扁、扭转等变形时,芯线之间以及芯线和护套之间的相对位置保持不变,不会产生短路,也不会影响电气性能。寿命长:由于电缆采用的材料全部是无机材料,不老化。其使用寿命可以按照铜护套氧化腐蚀的速率来计算。资料显示,护套氧化0.25mm,在250°C的环境下需要257年,而矿物绝缘电缆的护套厚度一般在0.34-1.05之间,使用温度又低于250°C,所以该电缆具有长寿命的特点。无卤无毒:由于电缆全都是用无机物(金属铜和矿物绝缘层)组成,因而即使在1000°C的高温下燃烧也不会产生烟雾、卤素和有毒气体是真正意义上的无卤无毒电缆。

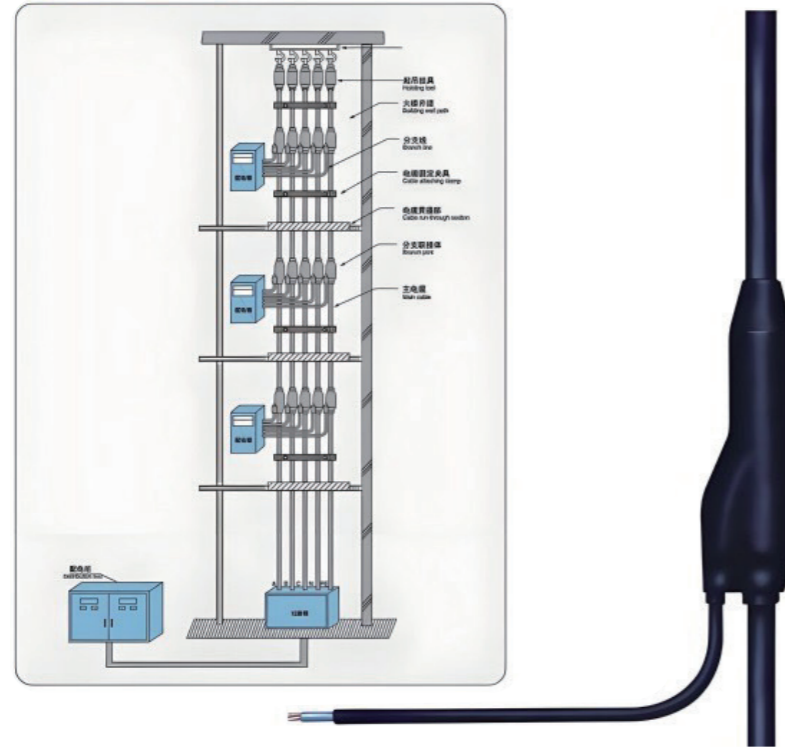
Mechanical Damage Resistance: The metal sheath of the cable has a certain degree of strength and toughness. When the cable is subjected to deformation such as bending, flattening, or torsion, the relative positions between the cores and between the cores and the sheath remain unchanged, preventing short circuits and ensuring no impact on electrical performance. Long Service Life: Mineral insulated cables use only inorganic materials, which do not age. Their service life can be calculated based on the oxidation and corrosion rate of the copper sheath. Data shows that it takes 257 years for the sheath to oxidize by 0.25mm at an ambient temperature of 250°C. Since the sheath thickness of mineral insulated cables is generally between 0.34-1.05mm and the operating temperature is below 250°C, they have a long service life. Halogen-Free & Non-Toxic: As mineral insulated cables are entirely composed of inorganic materials (metallic copper and mineral insulation), they do not produce smoke, halogens, or toxic gases even when burned at a high temperature of 1000°C, making them truly halogen-free and non-toxic cables.

● 耐过载、铜护套可以作接地线 Overload Resistance and Copper Sheath as Ground Wire

耐过载:由于铜的熔点是1083°C、矿物绝缘层也是1000°C以上熔点,与普通塑料电缆相比,矿物绝缘电缆的载流量能力可以提高一个截面等级,同时能承受相当大的过载,其过载能力可以达到正常载流量的10倍以上。铜护套可以作接地线:对于矿物绝缘电缆,由于铜护套的连续性和极低的接地电阻,因此可以作为接地导线使用,不需要独立的接地导线。

Overload Resistance: With a copper melting point of 1083°C and a mineral insulation layer melting point above 1000°C, mineral insulated cables have an ampacity grade higher than that of ordinary plastic cables. They can also withstand significant overloads, with an overload capacity of more than 10 times the normal ampacity. Copper Sheath as Ground Wire: Due to the continuity of the copper sheath and its extremely low grounding resistance, the copper sheath of mineral insulated cables can be used as a ground wire, eliminating the need for an independent ground wire.

EONGE



产品概述

Product Overview

预分支电缆是一种创新型的电力配送解决方案，完全根据用户特定的配电系统设计图纸，在专业化的工厂流水线上预先制造而成。它将主干电缆、分支电缆以及关键的分支接头在出厂前便集成为一个整体。

Pre-branched cables are an innovative power distribution solution, custom-manufactured on specialized factory assembly lines in full compliance with users' specific power distribution system design drawings. They integrate the main cable, branch cables, and key branch connectors into a single unit before leaving the factory.

核心标准

Core Standards

- JG/T 147《额定电压0.6/1 kV铜芯塑料绝缘预制分支电力电缆》
JG/T 147 "Copper conductor Plastic-insulated Prefabricated Branch Power Cables with Rated Voltage of 0.6/1 kV"
- JB/T 10636《额定电压0.6/1kV(Um=1.2kV)铜芯塑料绝缘预制分支电缆》
JB/T 10636 "Copper conductor Plastic-insulated Prefabricated Branch Cables with Rated Voltage of 0.6/1kV (Um=1.2kV)"
- GB/T 12706《额定电压1kV到35kV挤包绝缘电力电缆及附件》
GB/T 12706 "Extruded Insulation Power Cables and Accessories with Rated Voltage from 1kV to 35kV"

产品型号

Product Models

普通型: FZ-YJV-0.6/1kV
Regular type: FZ-YJV-0.6/1kV

耐火型: FZ-NH-YJV-0.6/1kV
Fire-resistant type: FZ-NH-YJV-0.6/1kV

阻燃型: FZ-ZR-YJV-0.6/1kV
Flame-retardant type: FZ-ZR-YJV-0.6/1kV

低烟无卤阻燃型: FZ-WDZ-YJE-0.6/1kV
Low-Smoke Zero-Halogen Flame-Retardant Type: FZ-WDZ-YJE-0.6/1kV

预分支电缆以其卓越的适应性和经济性，广泛应用于住宅楼、办公楼、写字楼、商贸大厦、酒店、医院、学校、科研楼的电气竖井内垂直供电主干线。

With excellent adaptability and cost-effectiveness, pre-branched cables are widely used as vertical power supply backbone lines in electrical shafts of residential buildings, office buildings, commercial buildings, hotels, hospitals, schools, and research buildings.

核心优势

Core Advantages

优势类别 Advantage Category	具体说明 Specific Description
超高供电可靠性 Ultra-High Power Supply Reliability	主干电缆无中间接头，连续性极佳；工厂全机械化制作分支接头，品质均一稳定，接触电阻小，不受热胀冷缩影响。 The main cable has no intermediate connectors, ensuring excellent continuity; the branch connectors are fully mechanized in the production, guaranteeing uniform and stable quality, low contact resistance, and no impact from thermal expansion or contraction.
显著经济效益 Significant Economic Benefits	相比封闭母线槽，工程造价显著降低；安装时可缩短至母线槽的5%-10%，综合效益明显。 Compared to enclosed busbar trunking, the construction cost is significantly reduced; installation time can be shortened to 5%-10% of that for busbar trunking, resulting in notable comprehensive benefits.
安装便捷高效 Convenient and Efficient Installation	对土建空间尺寸要求低，占用建筑面积小；敷设方式灵活（电缆沟、桥架、竖井均可）；现场安装技术要求低，周期极短。 It has low requirements for civil engineering space dimensions, occupies a small building area, and support flexible laying methods (cable trenches, cable trays, and shafts); on-site installation has low technical requirements and an extremely short cycle.
卓越的环境适应性 Excellent Environmental Adaptability	具备优异的抗震、防水、气密性能；耐火型号可保障火灾时持续供电；低烟无卤型号满足环保安全要求。 It exhibits excellent seismic resistance, water resistance, and airtightness; fire-resistant models ensure continuous power supply during fires; low-smoke and zero-halogen models meet environmental and safety requirements.
个性化定制与免维护 Customization and Maintenance-Free	主干与分支电缆的型号、截面、长度及分支位置均可按图定制，组合灵活。系统一次安装开通率近100%，正常运行下免维护。 The model, cross-section, length, and branching position of the trunk and branch cables can be customized according to the drawings, allowing for flexible combinations. The system has a nearly 100% installation and commissioning rate, and requires no maintenance under normal operation.



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