

特种电缆

选型样本

Special Cable



耐高温(阻燃)电力电缆
High temperature resistant(flame retardant)power cable
硅橡胶绝缘(阻燃)软电力电缆
Silicon rubber insulation(flame retardant)flexible power cable
硅橡胶(阻燃) 扁电力电缆
Silicon rubber (flame retardant)flat power cable
硅橡胶(阻燃) 控制软电缆
Silicon rubber (flame retardant)control flexible cable
低烟低卤阻燃控制电缆
Low smoke low halogen flame retardant control cable
无卤低烟阻燃、耐火电缆
Low smoke zero halogen flame retardant fire resistant cable
耐火电缆
Fire resistant cable
氟塑料绝缘耐高温控制电缆
High temperature resistant control cable with Fluoroplastic insulation

丁腈聚氯乙烯复合物软电缆
Butadiene PVC compound Flexible Cable
自控温伴热电缆
Self-thermal control heating cable
恒功率电热带
Constant power electrically-heated tape
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℃电机绕组引接软电缆
180℃ flexible cable for motor winding connection
具有屏蔽和耐化学药品功能的电力电缆
Power cable with shielding and chemical medicine resistance

特种电缆

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及以下的高温范围和恶劣环境内，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 采用企业标准

Executive standard: enterprise standard

二、使用特性

Performance in Usage

- 1、额定电压U₀/U: 0.6/1kV。
- 2、电缆允许最高工作温度: 氟塑料绝缘及护套为200℃; 氟塑料绝缘耐热105聚氯乙烯护套为105℃; 氟塑料绝缘硅橡胶护套为180℃。
- 3、短路时(最长持续间不超过5S)电缆导体的最高温度不超过250℃。
- 4、电缆敷设温度应不低于-15℃。
- 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。

- 1: Rated voltage U₀/U: 0.6/1kV
- 2: Max.working temperature allowed by cable is 200℃ for cable with fluoroplastic insulation and sheath, 105℃ for cable with fluoroplastic insulation, 105℃ heat resistant and PVC sheath, and 180℃ for cable with fluoroplastic insulation and silicon rubber sheath.
- 3: Max temperature of cable conductor is no more than 250℃ during short circuit (The longest lasting time is no more than 5s).
- 4: Temperature for installation is no less than -15℃.
- 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、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

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 F ₄₆ insulation and sheath
FF22	聚全氟乙丙烯绝缘护套钢带铠装耐高温电力电缆 High temperature resistant power cable with F ₄₆ 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 F ₄₆ insulation (flame retardant)and silicon rubber sheath
(ZR)-FG22	聚全氟乙丙烯绝缘(阻燃)硅橡胶护套钢带铠装耐高温电力电缆 High temperature resistant power cable with F ₄₆ insulation (flame retardant), silicon rubber sheath and steel tape armoring
(ZR)-FV	聚全氟乙丙烯绝缘(阻燃)耐热105聚氯乙烯护套耐高温电力电缆 High temperature resistant power cable with F ₄₆ insulation (flame retardant), 105℃ heat resistance and PVC sheath
(ZR)-FV22	聚全氟乙丙烯绝缘(阻燃)耐热105聚氯乙烯护套钢带铠装耐高温电力电缆 High temperature resistant power cable with F ₄₆ insulation (flame retardant), 105℃ heat resistance , PVC sheath and steel tape armoring

注: 型号中“22”表示钢带铠装, 如需钢丝铠装结构应将型号中的“22”改为“32”即可。

Note: 22 means steel tape armor “22” should be changed into “32” for cable with steel wire armor (if needed).

特种电缆

四、电缆规格

电缆规格表示为芯数×导体标称截面mm²,其芯数及导体标称截面如表2

Specification of Cable

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

Table 2

型号 Type	芯数 Core number	标称截面 mm ² Nominal cross section area
FF	1、2、3、4、5、 3+2、3+1	1.5~95
FF22		2.5~70
(ZR)-FG、(ZR)-FV		1.5~240
(ZR)-FG22、(ZR)-FV22		2.5~240

五、技术参数

- 1、20℃导体直流电阻应符合GB/T3956标准规定。
- 2、电缆应经受3500V交流耐压试验5min绝缘不击穿。

Technical Parameter

- 1: DC resistance of conductor at 20℃ 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

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%

特种电缆

硅橡胶绝缘(阻燃)软电力电缆 Soft Power Cable with Silicon Rubber Insulation(flame retardant)

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中，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。

一、生产执行标准： 采用企业标准。

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(最长持续间不超过5S)电缆导体的最高温度不超过250℃。
- 4、电缆敷设温度应不低于-20℃。
- 5、电缆的弯曲半径如下：单芯电缆弯曲半径不小于电缆外径的15D；(D-电缆外径)；
三芯电缆弯曲半径不小于电缆外径的12D。

三、电缆型号名称

- 1、电缆型号名称如表1

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.

Executive standard: enterprise standard

Performance for Usage

- 1: Rated voltage U₀/U:600/1000V
- 2: Working temperature allowed by cable is -60℃~+180℃.
- 3: Max temperature of cable conductor is no more than 250℃ during short circuit(The longest lasting time is no more than 5s.)
- 4: Temperature for installing is no less than -20℃.
- 5: Bending radius of cable as follows:
It is no less than 15 times that of cable outer diameter for cable with single core
It is no less than 12 times that of cable outer diameter for cable with three cores

Type and Description

Type and Description Listed in the Following Table

Table 1

型号 Type	名称 Description
(ZR)-HGG	硅橡胶绝缘硅橡胶护套(阻燃)电力软电缆 (flame retardant)power soft cable with silicon rubber insulation and sheath
(ZR)-HGGP	硅橡胶绝缘硅橡胶护套铜丝编织屏蔽(阻燃)电力软电缆 (flame retardant)power soft cable with silicon rubber insulation and sheath, copper wire braided shielding
(ZR)-HGGP2	硅橡胶绝缘硅橡胶护套铜带屏蔽(阻燃)电力软电缆 (flame retardant)power soft cable with silicon rubber insulation and sheath, copper tape shielding
(ZR)-HGV _F	硅橡胶绝缘丁腈聚氯乙烯护套(阻燃)电力软电缆 (flame retardant)power soft cable with silicon rubber insulation and butadiene PVC sheath
(ZR)-HGV _F P	硅橡胶绝缘丁腈聚氯乙烯护套铜丝编织屏蔽(阻燃)电力软电缆 (flame retardant)power soft cable with silicon rubber insulation, butadiene PVC sheath, copper wire braided shielding
(ZR)-HGV _F 22	硅橡胶绝缘丁腈聚氯乙烯护套钢带铠装(阻燃)电力软电缆 (flame retardant)power soft cable with silicon rubber insulation, butadiene PVC sheath, steel tape armor
(ZR)-HGV _F P2	硅橡胶绝缘丁腈聚氯乙烯护套铜带绕包屏蔽(阻燃)电力软电缆 (flame retardant)power soft cable with silicon rubber insulation, butadiene PVC sheath, copper tape wrapped shielding

注：型号中H-硅橡胶电力软电缆系列代号，
G-硅橡胶绝缘或护套，
VF-丁腈聚氯乙烯护套，
P-铜丝编织屏蔽，
22-钢带铠装，如需钢丝铠装结构应将型号中的“22”改为“32”即可。

Note: type-naming code
H means series No. of silicon rubber power soft cable.
G means silicon rubber insulation or sheath
VF means butadiene PVC sheath
P means copper wire braided shielding
22 means steel tape armor “22” in the original type should be changed into “32” for cable with steel wire armor (if needed).

特种电缆

四、规格范围

电缆规格用导体芯数×导体标称截面mm²表示，如表2：

Specification

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

Table 2

型号 Type	芯数 Core number	标称截面 mm ² Nominal cross section area
(ZR)-HGG	1、2、3、4、5、 3+2、3+1	单芯：1.5~500 多芯：1.5~240 1.5~500 for single core 1.5~240 for multi-core
(ZR)-HGPP		
(ZR)-HGPP2		
(ZR)-HGV _F		
(ZR)-HGV _F P		
(ZR)-HGV _F 22		
(ZR)-HGV _F P2		

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，成品电缆导电线芯的直流电阻，换算到电缆长度为1m，标称截面为1mm²和温度为20℃时，铜芯线芯应不大于0.0184Ω。

2、成品电缆绝缘线芯的绝缘电阻: 成品电缆绝缘线芯的绝缘电阻，换算到电缆长度为1km和温度为20℃时，导电线芯截面在50mm²及以下的应不小于50MΩ,70~185mm²的应不小于35MΩ。

3、成品电缆应经受工频交流试验电压3000V、5min电压试验，绝缘无击穿。

Technical parameter

1: DC resistance of finished cable conductor at 20℃ shall meet the requirement of GB/T3956 standard. Conductive core DC resistance of finished cable is no more than 0.0184Ω for cable with cross section 1mm² under the condition that cable length is 1m and temperature is 20℃.

2: Insulated resistance of finished cable insulated conductor will be no less than 50MΩ for cable with conductive core cross section 50mm² or lower and 35 MΩ for cable with conductive core cross section 70~185mm² under the condition that cable length is 1km and temperature is 20℃.

3: 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%

特种电缆

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: 采用企业标准

Executive standard: enterprise standard

二、使用特性

Performance for Usage

- 1、额定电压:U₀/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(最长持续间不超过5S)电缆导体的最高温度不超过250℃。
- 4、电缆敷设温度应不低于-20℃。
- 5、缆最小弯曲半径为电缆小边长度的10倍。

- 1: Rated voltage U₀/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 250℃ 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

Type and Description

- 1、电缆型号名称如表1

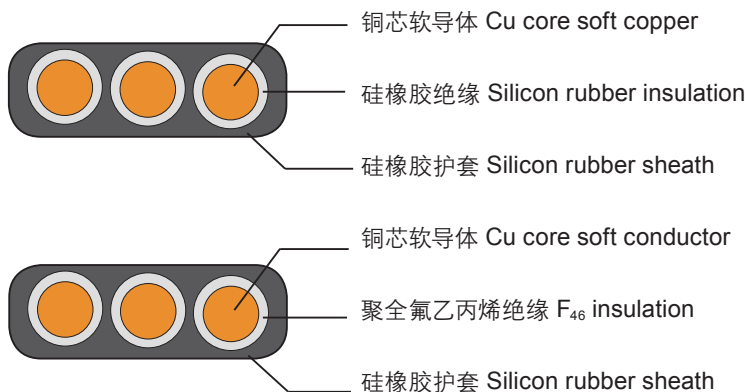
Type and description of cable listed in table 1

Table 1

型号 Type	名称 Description
(ZR)-YGCB	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	聚全氟乙烯绝缘硅橡胶护套(阻燃)扁电力电缆 (flame retardant)Flat power cable with F ₄₆ insulation and silicon rubber sheath

- 2、电缆结构图如下:

The figure of cable structure



四、主要性能参数

Main Performance Parameter

- 1、在20℃时导体直流电阻应符合下表规定:

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

截面mm ² Cross section area Romax	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185
(Ω/km)	26.0	19.5	13.3	7.98	4.95	3.30	1.91	1.21	0.780	0.551	0.386	0.272	0.206	0.161	0.129	0.106

特种电缆

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 ² 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	电缆外径mm Cable OD	重量(kg) Weight
4×1	1.29	0.8	1.6	1	17.76×6.09	225
6×1	1.29	0.8	1.6	1	25.54×6.09	3.8
8×1	1.29	0.8	1.6	1	33.32×3.09	360
4×1.5	1.56	1	1.6	1	20.44×6.76	291
6×1.5	1.56	1	1.6	1	29.56×6.76	360
8×1.5	1.56	1	1.6	1	38.68×6.76	469
4×2.5	2.05	1.4	1.6	1.5	27.1×8.05	333
6×2.5	2.05	1.4	1.6	1.5	39.8×8.05	536
8×2.5	2.05	1.4	1.6	1.5	52.5×8.05	608
4×4	2.60	1.8	1.7	1.7	33.3×9.6	457
6×4	2.60	1.8	1.7	1.7	49.1×9.6	790
4×6	3.15	2	1.9	2.0	38.4×11.5	615
6×6	3.15	2	1.9	2.0	56.7×11.5	1098
3×10	4.4	2.5	2.4	2.4	37.8×14.2	702
6×10	4.4	2.5	2.4	2.4	73.2×14.2	1428
3×25	6.81	2.8	2.7	2.8	48.23×17.81	1645
6×25	6.81	2.8	2.7	2.8	93.86×17.81	3325
4×35	7.9	3	3	3	70.6×19.9	2181
3×50	9.2	3.2	3.1	3.4	59.8×21.8	2681
4×50	9.2	3.2	3.1	3.4	78.8×21.8	3158
3×70	12.6	3.4	3.3	3.8	72.4×26	2878
3×120	15.4	3.8	3.07	4.2	84.8×30.4	5157
3×150	16.4	4	4.1	4.4	90.2×32.6	6171

3、成品电缆线芯的绝缘电阻

成品电缆绝缘线芯的绝缘电阻，换算到电缆长度为1km和温度为20℃时，导电线芯截面在50mm²及以下的应不小于50MΩ，70~185mm²的应不小于35 MΩ；多芯电缆的成品电压试验应经受交流50HZ，试验电压3500V、5min，绝缘无击穿。

Insulated Resistance of Finished Cable Conductor

Insulated resistance of finished cable insulated conductor will be no less than 50MΩ for cable with conductive core cross section 50mm² or lower and 35 MΩ for cable with conductive core cross section 70~185mm² under the condition that cable length is 1km and temperature is 20℃. Finished cable with multi-core shall bear voltage test of 3500v, AC 50Hz for 5 minutes without puncture of insulation.

五、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%

特种电缆

硅橡胶（阻燃）控制软电缆

Silicon Rubber(flame retardant)Control soft 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 450/750V or lower 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 采用企业标准。

Executive standard: enterprise standard

二、使用条件

Working Condition

- 1、交流额定电压U0/U: 450/750V ;
- 2、电缆的敷设温度应不低于-20℃;
- 3、电缆允许工作温度范围: -60℃~+180℃, 推荐弯曲半径不小于电缆外径的6倍, 有铜带屏蔽结构的电缆其弯曲半径不小于电缆外径的10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;
- 5、电绝缘性能好, 耐电晕和抗电弧性很优越;

- 1: A.C rated voltage U0/U: 450/750V
- 2: Temperature for installing is no lower than -20℃.
- 3: Working temperature allowed by cable is -60℃~+180℃. Recommended bending radius is no less than 6 times that of cable OD and 10 times that of cable OD for cable with copper tape shielding.
- 4: It has good features of ozone aging resistance, thermal aging resistance, ultraviolet resistance and atmosphere aging resistance.
- 5: Good performance of electric insulation, corona resistance and arc 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 Main application occasion
(ZR)-KGG	铜芯硅橡胶绝缘硅橡胶护套控制电缆 Control cable with Cu core, silicon rubber insulation and sheath	敷设在室内、电缆沟、管道固定场合 To be fixedly laid indoor, in cable furrow or pipe
(ZR)-KGGP	铜芯硅橡胶绝缘硅橡胶护套编织屏蔽控制电缆 Control 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 To be fixedly laid indoor, in cable furrow or pipe with demand on shielding
(ZR)-KGGP ₂	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, in cable furrow or pipe with demand on shielding
(ZR)-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	敷设在室内移动要求柔软等场合 to be laid indoor or in the environment with demand on softness and mobility
(ZR)-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	敷设在室内移动要求柔软、屏蔽等场合 to be laid indoor or in the environment with demand on softness and shielding

特种电缆

四、电缆规格如下表所示

Cable structure as follows

型号 Type	额定 电压V Rated voltage	导体标称截面mm ² Nominal cross section area of conductor							
		0.5	0.75	1.0	1.5	2.5	4	6	10
		芯 数 core number							
KGG、KGGP、KGGP ₂	450/750	2~61				2~14		2~10	
KGGR、KGGRP		4~61		4~48		2~14			

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: core of 2,3,4,5,7,8,10,12,14,16,19,24,27,30,37,44,48,52,61.
 We also produce cable with 61 cores or lower.

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。

六、交货要求

允许根据双方协议长度交货；长度计量误差不超过±0.5%。

Technical Parameter

1: Insulated resistance of finished cable insulated conductor will be no less than 50M 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.

Delivery Length

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

特种电缆

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GB9330-88。

Executive standard:

enterprise standard and GB9330-88 standard for reference

二、使用特性

- 1、额定电压:U₀/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。

Working Condition

- 1: Rated voltage: 450/750V
- 2: Long-term working temperature allowed by cable is 70℃.
- 3: Ambient temperature for installing cable shall be no lower than 0℃.

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：

Type and Description in table 1

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 wire braided shielding
DDZ -KVVR	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 -KVVRP	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 soft cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath, copper wire braided shielding
DDZ -KVVP2	铜芯低烟低卤阻燃型聚氯乙烯绝缘、护套铜带绕包屏蔽控制电缆 Control cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath, copper tape wrapped shielding
DDZ -KVVP22	铜芯低烟低卤阻燃型聚氯乙烯绝缘、护套钢带铠装控制电缆 Control cable with Cu core, low smoke & halogen, flame retardant, PVC insulation and sheath, steel tape armor
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 Explanation of Main Noun Term

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，试样燃烧时放出的卤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。

Low smoke: under stipulated testing conditions, smoke out of decomposition with heat or emission in firing is less, which conforms to stipulated indices.

Low halogen: under stipulated testing conditions, HCl content of smoke emitted in firing is less which conforms to stipulated indices.

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

特种电缆

四、电缆规格范围如表2:

Specification Scope in Table 2

Table 2

型号 Type	额定电压 Rated voltage V	导体标称截面mm ² Nominal cross section area of conductor							
		0.5	0.75	1.0	1.5	2.5	4	6	10
		芯数 core no.							
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

1、低烟低卤阻燃性能指标

(1) 烟密度试验: 最小透光率≥40%;

(2) Hcl气体释放量不大于100mg/g。

2、20℃时导体直流电阻值及耐电压强度

performance indices of low smoke & halogen and flame retardance

Smoke density test: min. light-penetration ratio is ≥ 40%.

Hcl emission value shall be no more than 100mg/g.

Conductor DC resistance value & voltage withstand stress at 20℃

标称截面 (mm ²) Nominal cross section area	导体结构 根数/直径(mm) Conductor structure Pieces/diameter	20℃导体直流电阻(Ω/km) Conductor DC resistance at 20℃		耐电压强度 Voltage withstand 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	
	49/0.26	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

Delivery length

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

特种电缆

无卤低烟阻燃、耐火电缆

Low Smoke No Halogen Flame Retardant Fire Resistant Cable

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。

The product is used for controlling and supervising return circuit or power system with requirement of rated voltage 600/1000V or lower, low smoke and no halogen.

一、生产执行标准

采用企业标准及参照GB9330-88、GB/T12706-2002。

Executive standard:

Use enterprise standard or refer to GB9330-88、GB/T12706-2002 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有铠装和铜带屏蔽结构的电缆：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。

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。

Working condition

Long-term working temperature of cable is 90℃.

Cable installation temperature is no less than 0℃. Recommended bending radius is as following:

No halogen flame retardant control cable:

Bending radius is no less than 12 times that of cable outer diameter for cable with structure of armoring and copper tape shielding.

Bending radius is no less than 6 times that of cable outer diameter for cable with other structure.

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、电缆的型号名称

1、 电缆的型号名称如下表

cable type & name

cable type & name as following:

型号 type		名称name
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）交联聚乙烯绝缘钢带铠装无卤低烟阻燃电力电缆 Copper core (aluminum core) XLPE insulation steel tape armoring 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

特种电缆

型号 type	名称 name
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: cable sample discharges little hydrogen halogen gas when being burn 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, spark spreading is controlled within stipulated range. Remnant spark or burning can put out by itself within stipulated time.

四、电缆的规格如下表所示

cable specification as followings:

型号 type	额定电压 V Rated voltage	导体标称截面mm ² nominal cross section area of conductor							
		0.5	0.75	1.0	1.5	2.5	4	6	10
		芯数 core number							
WDZ-KYJY、WDZ-KYJYP	600/1000V	2~61				2~37	2~14		
WDZ-KYJYP2、WDZ-KYJY33 WDZ-KYJYP2-23		4~61							
WDZN-KYJY		/		2~61					
WDZN-KYJYP2 WDZN-KYJYP2-23		/		4~61					
WDZ-YJY、WDZ-YJLY		单芯 single core: 2.5mm ² ~500mm ² 2、3、4、5、3+1、3+2、4+1芯 core: 2.5~300mm ²							
WDZ-YJY23、WDZ-YJLY23									
WDZ-YJY33、WDZ-YJLY33									
WDZN-YJY、WDZN-YJY23									
WDZN-YJY33									

特种电缆

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1012Ω·Cm。
- 3、电缆均应经受3.5kV交流电压试验，5min绝缘不击穿。
- 4、无卤低烟阻燃性能指标：

main technical parameter

Conductor DC resistance is in accordance with GB/T3956 standard.
 Insulated resistance constant is no less than 3.67MΩ·km at 90℃. Volume resistance ratio is no less than 1012Ω·Cm.
 Cable shall endure 3.5kv A.C. voltage test for 5 minutes without puncture.
 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. permeate ratio	%	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	μ S/mm	4.3 10	GB/T17650.2-1998(idtIEC60754)
卤化氢气体含量 Hydrogen halogen gas content	mg/g	≤5	GB/T17650.1-1998(idtIEC60754)
成束试验 Bundle burning test 试验级别 test class 供火时间 time for fire 每米可燃物总体积 Total volume of combustibile per meter 炭化高度carbide height	min L m	A B C 40 40 2 7 3.5 1.5 2.5 2.5 2.5	GB/T18380.3-2001 (替代replace for GB12666.5-90)

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

特种电缆

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，也时应急电源、消防泵、电梯通讯信号系统的应备电缆。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 采用企业标准

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450/750V）。
- 2、电缆最高长期工作温度
 - ① 阻燃聚氯乙烯绝缘及护套：70℃和105℃两种；
 - ② 交联聚乙烯绝缘：90℃；。
- 3、电缆安装敷设温度应不低于0℃。
- 4、敷设推荐的允许弯曲半径：电力电缆：单芯电缆≥40D；多芯电缆≥30D。控制电缆：≥12D。B系列塑料电线：≥4D（D<25mm时）；≥6D（D≥25mm时）。

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 fighting fire to lower damage.

Executive standard: enterprise standard

Working Condition

- 1: AC rated voltage: U0/U (V series; 600/1000V; K series: 450/750V; Bseries450/750V)
 - 2: Max temperature of long term working is 70℃ &105℃ for flame retardant cable with PVC insulation and 90℃ for cable with XLPE insulation.
 - 3: Temperature for installation is no lower than 0℃.
 - 4: Recommended bending radius for installing: ≥40D for power cable with single core; ≥30D for power cable with multi-core; ≥12D for control cable.
- B series plastic wire: ≥4D (D<25mmw) ; ≥6D (D≥25mm)
- Note: D means outer diameter

Type and Description in Table 1

Table 1

型号 Type	名称 Description	
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	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。
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钢带铠装耐火控制电缆 Fire resistant control cable with Cu core, PVC insulation and sheath, steel tape armor	
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钢带铠装耐火电力电缆 Fire resistant power cable with Cu core, PVC insulation and sheath, steel tape armor	Note: We also produce fire resistant cable with steel wire armor. “22” should be replaced by “32” when ordering
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钢带铠装耐火电力电缆 Fire resistant power cable with Cu core, XLPE insulation and PVC sheath, steel tape armor	

特种电缆

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 ²) Core No.: 1~5 core, 3+2 core Cross section area: 2.5~240 (mm ²)
NH-KVV、NH-KVV22	450/750	芯数: 2~61芯 截面: 2.5~10 (mm ²) Core No.: 2~61 core Cross section area: 2.5~10 (mm ²)
NH-BV、NH-BVV	450/750	芯数: 1~5芯 截面: 2.5~240 (mm ²) Core No.: 1~5 core Cross section area: 2.5~240 (mm ²)

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IEC60331标准要求: 电缆在燃烧试验期间3A熔丝不熔断。
- 4、耐火电缆的参考外径, 截面在25mm²及以下的比普通同型号的产品规格大15%, 截面在25mm²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四層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 IEC60331 standard. 3A fuse wire won't break during burning test period.
- 4: Out diameter of fire resistant cable with cross section 25mm² or lower is bigger than that of common cable by 15%. Out diameter of fire resistant cable with cross section more than 25mm² is bigger than that of common cable by 25%.

Cautions

- 1: Four layers of 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%

特种电缆

氟塑料绝缘耐高温控制电缆

High-temperature resistant Control Cable with Fluoroplastics Insulation

一、产品特点及用途

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、耐磨、耐酸碱及各种化学试剂（除氯仿外）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或改性聚四氟乙烯材料，产品具有比普通控制电缆更高的耐热等级，

二、产品执行标准

采用企业标准。

三、产品使用特性

- 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：
氟塑料外护层为200℃/260℃；
聚氯乙烯外护层为105℃；
硅橡胶外护层为180℃。
- 3、电缆的敷设温度应不低于：
聚氯乙烯护套电缆0℃；
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6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12倍；
有屏蔽层结构的软电缆，应不小于电缆外径的6倍；
氟塑料绝缘护套材料的电缆应不小于电缆外径的8倍。

Product Characteristic and Application

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, various chemical reagent(except chloroform) and corrosive gas resistance, aging resistance and bad weather resistance 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. F46 or Teflon insulation material is adopted by control cable with fluoroplastics insulation & sheath and high temperature resistance. It has better heat resistant degree compared with common control cable.

Executive standard:

enterprise standard

Performance for Usage

- A.C. rated voltage U₀/U: 450/750V
- 2: Long-term working temperature of cable conductor:
Temperature of fluoroplastic outer protecting layer is 200℃/260℃.
Temperature of PVC outer protecting layer is 105℃.
Temperature of silicon rubber outer protecting layer is 180℃.
- Temperature for installing cable is no lower than:
0℃ for cable with PVC sheath
-20℃ for cable with silicon rubber sheath
-20℃ for cable with fluoroplastic sheath
- Bending radius allowed by cable:
It is no less than 6 times that of cable OD for cable with inarmored layer
It is no less than 12 times that of cable OD for cable with armored layer or copper tape shielding
It is no less than 6 times that of cable OD for soft cable with shielding structure
It is no less than 8 times that of cable OD for cable with fluoroplastic insulation and sheath

特种电缆

四、电缆型号及名称

Type and Description

1、基本型号及名称

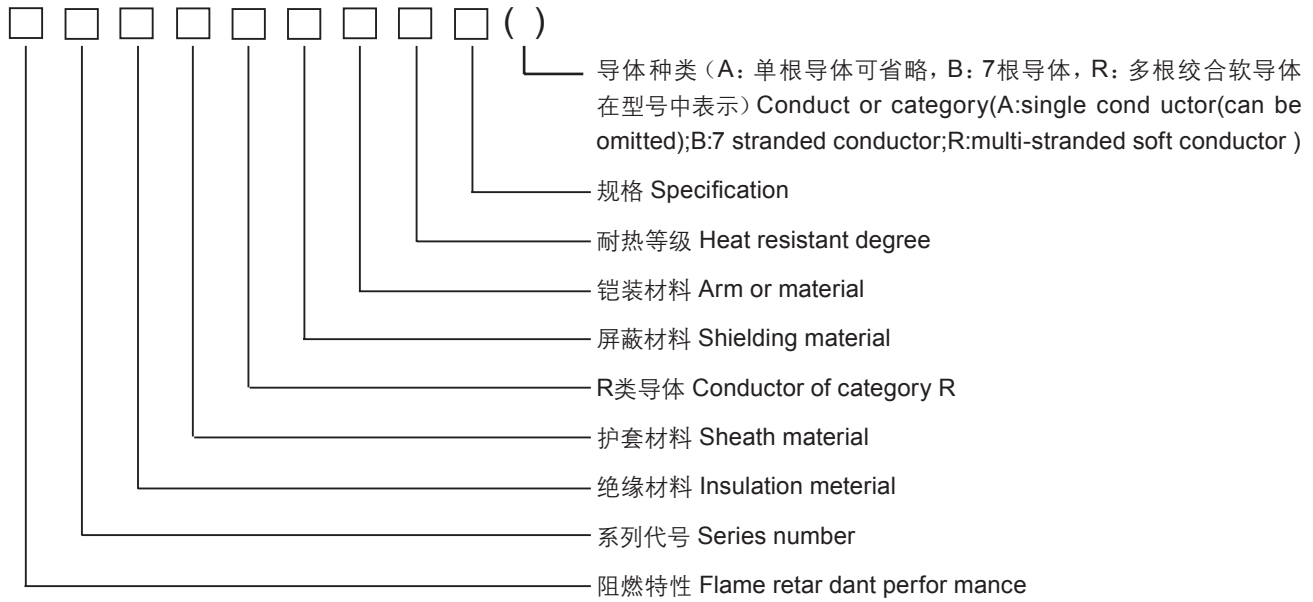
Basic Type and Description

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 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 Control soft cable with fluoroplastic insulation and sheath, copper wire braided shielding
KFV	氟塑料绝缘聚氯乙烯护套控制电缆 Control cable with fluoroplastic insulation and PVC sheath
KFVP	氟塑料绝缘聚氯乙烯护套铜丝编织屏蔽控制电缆 Control cable with fluoroplastic insulation, PVC sheath, copper wire braided shielding
KFVR	氟塑料绝缘聚氯乙烯护套控制软电缆 Control soft cable with fluoroplastic insulation and PVC sheath
KFVRP	氟塑料绝缘聚氯乙烯护套铜丝编织屏蔽控制软电缆 Control soft cable with fluoroplastic insulation, PVC sheath, copper wire braided shielding
KFV22	氟塑料绝缘钢带铠装聚氯乙烯护套控制电缆 Control cable with fluoroplastic insulation, PVC sheath, steel tape armor
KFVP22	氟塑料绝缘钢带铠装聚氯乙烯护套铜丝编织屏蔽控制电缆 Control cable with fluoroplastic insulation, PVC sheath, steel tape armor, copper wire braided shielding
KFVR22	氟塑料绝缘钢带铠装聚氯乙烯护套控制软电缆 Control soft cable with fluoroplastic insulation, PVC sheath, steel tape armor
KFVRP22	氟塑料绝缘钢带铠装聚氯乙烯护套铜丝编织屏蔽控制软电缆 Control soft cable with fluoroplastic insulation, PVC sheath, steel tape armor, copper wire braided shieldin
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 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
KFG22	氟塑料绝缘钢带铠装硅橡胶护套控制电缆 Control cable with fluoroplastic insulation, silicon rubber sheath, steel tape armor

特种电缆

2、型号结构组合形式

Type-naming Indication



五、代号名称及含义

Codes Meaning

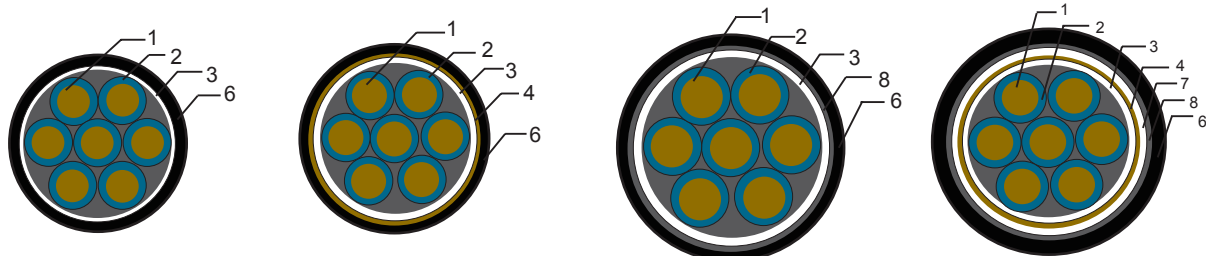
项目 Item	代号 Code	说明 Description
阻燃特性 flame retardant performance	ZRA	A类阻燃 Flame retardance of category A
	ZRB	B类阻燃 Flame retardance of category B
	ZRC	C类阻燃(C可以省略) Flame retardance of category C
系列代号 series number	K	控制电缆 Control cable
绝缘材料 insulation material	F	聚全氟乙丙烯/聚四氟乙烯 F ₄₆ /teflon
护套材料 sheath material	F	聚全氟乙丙烯/聚四氟乙烯 F ₄₆ /teflon
	G	硅橡胶 silicon rubber
	V	耐热105℃聚氯乙烯 heat resistance 105℃ PVC
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 armor material	22	钢带铠装聚氯乙烯护套 steel tape armor PVC sheath

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.

六、电缆的结构图如下所示

The figure of cable structure



1导体 2绝缘 3包带 4屏蔽 5填充 6外护套 7内衬层 8铠装

1:conductor 2:insulation 3: wrapping 4: shielding 5: filling 6: outer sheath 7: inner layer 8: armor

特种电缆

七、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	Nominal cross section area导体标称截面mm ²							
		0.5	0.75	1.0	1.5	2.5	4	6	10
		芯数 core number							
KFF、KFV KFG、KFFP KFVP、KFGP	450/750	2~61					2~37		2~14
KFFR、KFVR KFGP、FFRP KFVRP、KFGRP		4~61					2~37		
KFV22、KFVP22、KFVR22 KFVRP22		2~61					2~37		

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，但根据用户需要，可生产61芯以下任意芯数的电缆。
 Note: recommended core No. series: 2、3、4、5、7、8、10、12、14、16、19、24、27、30、37、44、48、52、61core. We also produce cable with 61 cores or lower according to the requirement of customer.

八、主要技术指标

Main Technical Indices

标称截面 (mm ²) nominal cross section area	导体结构conductor structure 根数/直径(mm) Pieces/diameter	20℃时导体电阻(Ω/km) conductor resistance at 20℃		耐电压强度 voltage withstand 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 Without puncture of insulation
	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	
	49/0.26	7.98	8.21	
4	1/2.25	4.61	4.70	
	7/0.85	4.61	4.70	
	19/0.52	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	
	19/0.64	3.08	3.11	
	84/0.30	3.30	3.39	
10	7/1.35	1.83	1.84	

特种电缆

九、常用规格结构尺寸及参考重量如下表

Common Specification and Weight for Reference

Table 1 KFF, KFFP, KFFP2

芯数×标称 截面mm ² core No.*nominal cross section area	线芯结构 (根数/直径) mm core structure (pieces/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	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

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Sequel table1 KFF, KFFP, KFFP2

芯数×标称 截面mm ² Core No.*nominal cross section area	线芯结构 (根数/直径) mm core structure (pieces/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	516	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 ² core No.*nominal cross section area	线芯结构 (根数/直径) mm core structure (pieces/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

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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	--	--

Table 2 KFFR、KFFRP、KFFRP2

芯数×标称 截面mm ² Core No.*nominal cross section area	线芯结构 (根数/直径) mm core structure (pieces/diameter)	最大外径mm Max. outer diameter			参考重量kg/km weight for reference		
		KFFR	KFFRP	KFFRP2	KFFR	KFFRP	KFFRP2
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	111
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	262	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

特种电缆

Sequel table2 KFFR、KFFRP、KFFRP2

芯数×标称 截面mm ² Core No.*nominal cross section area	线芯结构 (根数/直径) mm core structure (pieces/diameter)	最大外径mm Max. outer diameter			参考重量kg/km weight for reference		
		KFFR	KFFRP	KFFRP2	KFFR	KFFRP	KFFRP2
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

注：KFF系列电缆的外径在上表相应的型号规格后的外径上加上2~3mm，KFFG系列电缆的外径在上表相应的型号规格后的外径上加上2~5mm。

Note: Outer diameter of KFFV series cable should be added by 2~3mm after relevant specification in the above table; Outer diameter of KFFG series cable should be added by 2~5mm after relevant specification in the above table;

九、交货长度

根据双方协议允许任何长度交货；长度计量误差不超过±0.5%。

Delivery length

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

特种电缆

丁腈聚氯乙烯复合物软电缆 Butadiene PVC Compound Soft 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。

It is used for supervising and controlling return circuit of A.C. rated voltage of 450/750V or lower, power connection of various mobile electrical equipments, radio devices, and lighting & protection line with operation under low temperature.

一、生产执行标准
企业标准及JB1170-75标准。

Executive standard:
enterprise standard and JB1170-75 standard

二、使用条件

Working Condition

- 1、电导体长期工作温度：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。

- 1: Long-term working temperature of wire conductor is no more than 180℃ for cable with silicon 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、电缆型号见表1

Type and description in table 1

型号 Type	电缆名称 Cable 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,型号中不另作规定。 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、规格范围如下表

Type and Specification scope

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

特种电缆

五、主要技术指标

Main Technical Parameter

1、20℃时导体最大直流电阻值应满足表2规定：

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

Table 2

标称截面 (mm ²) Nominal cross section area	导体结构 根数/直径(mm) Conductor structure Pieces/diameter	20℃时导体直流电阻 $\leq \Omega/\text{km}$ Conductor DC resistance at 20℃	
		不镀锡 Not tinned	镀锡 tinned
0.5	16/0.20	39.0	40.1
0.75	24/0.20	26.0	26.7
1.0	32/0.20	19.5	20.0
1.5	30/0.25	13.3	13.7
2.5	49/0.26	7.98	8.21
4	56/0.30	4.95	5.09
6	84/0.30	3.30	3.39
10	84/0.40	1.91	1.95
16	110/0.43	1.21	1.24
25	170/0.43	0.78	0.795
35	240/0.43	0.554	0.565
50	342/0.43	0.386	0.393
70	482/0.43	0.272	0.277
95	654/0.43	0.206	0.210
120	827/0.43	0.161	0.164
150	1033/0.43	0.129	0.132
185	1274/0.43	0.106	0.108

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

2: Finished control cable shall bear A.C. test voltage of 3000V under power frequency for 5min without puncture of insulation.

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

3: Finished power cable shall bear A.C. test voltage of 3500V under power frequency for without puncture of insulation.

六、交货长度

Delivery length

允许根据双方协议长度交货；长度计量误差不超过±0.5%。

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

特种电缆

自控温伴热电缆 Self-thermal Control Heating Cable

自控温伴热电缆是由导电聚合物和两根平行金属导线及绝缘护层构成。其特点是导电聚合物具有很高的正温度系数特性，且互相并联，能随被加热体系的温度变化自动调节输出功率，自动限制加热的温度。可以任意截短或在一定范围内接长使用，并允许多次交叉重叠而无高温热点及烧毁之虑。

一、生产执行标准： 采用企业标准。

二、自控温电热带使用特性：

- 1、电热带相应被伴热体系具有自动调节输出功率，因此不会因自身发热而烧毁，却因实际需要热量进行补偿；
- 2、低温状态快速起动，温度均匀，因每一局部皆可因其被伴热处的温度变化自动调节；
- 3、安装简便、维护简单、全天服务，自动化水平高，运行及维护费用低；
- 4、安全可靠、用途广、不污染环境、寿命长。

三、产品介绍

1、低温系列 (DXW)

本产品专用于工艺管线或容器储罐及仪表的防冻和恒温，最高维持温度为 $70\pm 5^{\circ}\text{C}$ ，伴热线适用于普通区、危险区和腐蚀区。

性能参数：

- a、标准颜色：黑色、蓝色，
- b、温度范围：最高维持温度 65°C ，
最高表面温度 70°C ，
最高承受温度 105°C 。
- c、施工温度：最低 -40°C 。
- d、热稳定性：通断1000次连续22天，热线发热量维持在90%以上。
- e、绕曲半径： 20°C 室温时为12.7mm， -30°C 低温时为35.0mm。
- f、绝缘电阻：环境温度 75°C 时，用2500VDC摇表摇试1分钟，绝缘电阻（导线与屏蔽间）最小值为 $100\text{M}\Omega$ 。
- g、工作电压：12V、24V、36V、110V、220V、380V。
- h、 10°C 时输出功率：10、15、25、35、45 W/m。

2、中温系列 (ZXW)

It consists of conductive polymer, two pieces of parallel metallic conductor and insulation layer. Its conductive polymer has very high plus thermal coefficient and is in parallel connection. Automatic regulation on output power as thermal change of the system being heated results in automatic regulation on heating temperature. There are many choices on the cable length according to the application occasion. The overlapping of the cable is allowed, which results in no extreme heat point or burning.

Executive standard: enterprise standard

Performance for Usage

- 1: The automatic regulation on output power could be realized on heating part according to the change of heated system, which results in no extreme heat point or burning.
- 2: quick start at low temperature; each part temperature is under automatic regulation results in evenly heating.
- 3: easy installation, simple maintenance, 24 hours in service, high automatic level and low cost of operating and maintenance.
- 4: safe, reliable, wide application, environment-kindly, long lifetime

Product Introduction

Low Temperature Series (DXW)

It is specially used to resist freezing and keep constant temperature for pipes, containers or instruments. Max. lasting temperature is $70\pm 5^{\circ}\text{C}$. It is suitable for common area, danger area and corrosion resistant area.

Performance Parameter

Standard color: black, blue

Temperature scope: Max lasting temperature is 65°C .

Max surface temperature is 70°C .

Max sustainable temperature is

105°C .

Temperature for mounting: min. -40°C

Thermal stability: break and contact for 1000 times for continual 22 days; heating volume maintains above 90%.

Bending radius: 12.7mm for room temperature at 20°C ; 35.0mm for low temperature at -30°C

Insulated resistance: Min insulated resistance (between conductor and shielding) should $100\text{M}\Omega$ for one minute test with D.C 2500v instrument at the environment temperature of 75°C .

Working voltage: 12V, 24V, 36V, 110V, 220V, 380V.

Output power at 10°C : 10, 15, 25, 35, 45 W/m

Middle Temperature Series (ZXW)

特种电缆

本产品专用于工艺管线或容器储罐及仪器仪表的防冻和恒温及局部加热，最高维持温度为105℃，伴热线适用于普通区、危险区和腐蚀区。

性能参数：

- a、标准颜色：黑色、褐色、桔黄色。
- b、温度范围：最高维持温度105℃，最高表面温105℃，最高承受温度135℃。
- c. 施工温度：最低-30℃。
- d、热稳定性：通断1000次连续22天，热线发热量维持在90%以上。
- e、绕曲半径：20℃室温时为12.7mm,-30℃低温时为35.0mm。
- f. 绝缘电阻：环境温度75℃时，用2500VDC摇表摇 1分钟，绝缘电阻（导线与屏蔽间）最小值为100MΩ。
- g. 工作电压：12V、24V、36V、110V、220V、380V。
- h. 10℃时输出功率：25、35、40、45、55、60 W/m。

3、高温系列 (GXW)

本产品专用于需间歇性高温蒸气吹扫（最高至215℃，30min）的工艺管线或容器储罐的防冻和恒温及局部加热，最高维持温度为135℃，伴热线适用于普通区、危险区和腐蚀区。

性能参数：

- a、标准颜色：棕色、蓝色、桔黄色、红色。
- b、温度范围：最高维持温度135℃，最高表面温135℃，最高承受温度155℃。
- c. 施工温度：最低-30℃。
- d、热稳定性：通断1000次连续22天，热线发热量维持在95%以上。
- e、绕曲半径：20℃室温时为25.4mm,-30℃低温时为50.8mm。
- f. 绝缘电阻：环境温度75℃时，用2500VDC摇表摇试验1分钟，绝缘电阻（导线与屏蔽间）最小值为100MΩ。
- g. 工作电压：12V、24V、36V、110V、220V、380V。
- h. 10℃时输出功率：25、35、45、55、65、75 W/m。

4、特长系列 (GXW)

本产品专用于长输管线的防的防冻和恒温，最高维持温度为65、105、135℃。单一电源线路长度可达2000m（双向供电可达4000m）。伴热线适用于普通区、危险区和腐蚀区。

It is specially used to resist freezing, keep constant temperature and discharge partially for pipes, containers and instruments. Max. lasting temperature is 105℃. It is suitable for common area, danger area and corrosion resistant area.

Performance parameter

- Standard color: black, drab, orange
- Temperature scope: Max lasting temperature is 105℃.
- Max surface temperature is 105℃.
- Max sustainable temperature is 135℃.
- Temperature for mounting: min. -30℃
- Thermal stability: break and contact for 1000 times for continual 22 days; heating volume maintains above 90%.
- Bending radius:12.7mm for room temperature at 20℃; 35.0mm for low temperature at -30℃
- Insulated resistance: Min insulated resistance(between conductor and shielding)should 100MΩ for one minute test with D.C 2500v instrument at the environment temperature of 75℃.
- Working voltage: 12V、24V、36V、110V、220V、380V
- Output power at 10℃: 25、35、40、45、55、60 W/m.

High Temperature Series (GXW)

It is specially used to resist freezing, keep constant temperature and heat partially for pipes and containers with demands of periodical heat vapor sweeping(max. 215℃ for 30min). Max. lasting temperature is 135℃. It is suitable for common area, danger area and corrosion resistant area.

Performance parameter

- Standard color: brown, blue, orange, red
- Temperature scope: Max lasting temperature is 135℃.
- Max surface temperature is 135℃.
- Max sustainable temperature is 155℃
- Temperature for mounting: min. -30℃
- Thermal stability: break and contact for 1000 times for continual 22 days; heating volume maintains above 95%
- Bending radius: 25.4mm for room temperature at 20℃; 50.8mm for low temperature at -30℃
- Insulated resistance: Min insulated resistance(between conductor and shielding)should 100MΩ for one minute test with D.C 2500v instrument at the environment temperature of 75℃.
- Working voltage: 12V、24V、36V、110V、220V、380V.
- Output power at 10℃: 25、35、45、55、65、75 W/m.

Special Long Series (GXW)

It is specially used in long-distance transmission pipes to resist freezing and keep constant temperature. Max. lasting temperature is 65、105、135℃. Length of single power line reaches 2000m(4000m for that of power supply in double direction). It is suitable for common area, danger area and corrosion resistant area.

特种电缆

性能参数:

- a、标准颜色: 黑色(电热带护层颜色:黑色、棕色、红色)。
- b、温度范围: 最高维持温度 65、105、135℃,
最高表面温 70、105、135℃,
最高承受温度 105、135、155℃。
- C. 施工温度: 最低-30℃。
- d、电压等级: 380-600VAC, 3相4芯。
- e、线路长度如下表

- Performance parameter
Standard color: black(color of electric heating layer: black, brown, red)
Temperature scope: Max lasting temperature is 65, 105, 135℃.
Max surface temperature is 70, 105, 135℃.
Max sustainable temperature is 105, 135, 155℃
Temperature for mounting: min. -30℃
Voltage degree: 380-600VAC, 3 phrases 4cores
Wire Length in the following table

	单一电源 Single power	单向供电 Single direction power supply	双向供电 Double direction power supply
380VAC	最小线路长度 Min wire length	305m	610m
	最大线路长度 Max wire length	1000m	2000m
600VAC	最小线路长度 Min wire length	1000m	2000m
	最大线路长度 Max wire length	2000m	4000m

四、主要技术参数如表1:

Main Technical Parameter in the Following Table

型号 Type	品名 Description	功率 W/m Power	工作电压working voltage						最高承受温度 ℃ Max sustain- nable tem.	最低安装 温度℃ Min tem.for mounting	最大使用 长度 M Max length for usage
			12V	24V	36V	110V	220V	380-600V			
DXW	低温系列 Lower temperature series	最高维持温度 ±5℃ Max. lasting tempe- rature	5-15 60	5-25 60	10-25 60	10-35 70	15-45 70	15-45 70	105	-40	150
DXzW	低温窄系列 Lower temperature narrow series		5-15 50	5-25 50	10-25 50	10-35 70	10-35 70	10-35 70	105	-40	50
BXW	薄型系列 thin series		3-10 50-70	3-15 50-70	3-20 50-70	5-25 50-70	5-25 70-105		105-135	-40	30
ZXW	中温系列 middle temperature series		5-15 70	5-25 90	10-35 90	25-45 105	40-60 105	40-60 105	135	-30	100
ZXzW	中温窄系列 middle temperature narrow series		5-15 70	5-25 90	15-35 90	15-45 105	15-60 105	15-60 105	135	-30	50
ZXkW	中温宽系列 middle temperature wide series					40-60 105	40-60 105	40-60 105	135	-30	150
GXW	高温系列 high temperature series		10-25 135	10-30 135	10-40 135	25-70 135	35-70 135	35-70 135	155	-30	100
GXzW	高温窄系列 high temperature narrow series		10-25 135	10-30 135	10-40 135	25-50 135	25-50 135	35-70 135	155	-30	50
GXkW	高温宽系列 high temperature wide series					25-70 135	35-70 135	35-70 135	155	-30	150
TDXW	低温特长系列 Lower temperature and special length series						15-35 60	15-45 60	105	-20	300-2000
TZXW	中温特长系列 middle temperature and special length series						15-60 90	15-60 90	135	-20	300-2000
TGXW	高温特长系列 high temperature and special length series						25-70 130	25-70 130	155	-20	300-2000

特种电缆

恒功率电热带

Constant Power Electrically-heated Tape

本产品适用于交流额定电压220V单项和380V三相电路中，本产品主要用于各种管道、仪表的防冻、保温，最高维持温度150℃。

It is used in circuit of AC rated voltage single-phase 220V and three-phase 380V. It is mainly used to resist freezing and keep constant temperature for various pipes and instrument. Its Max maintaining temperature is 150℃.

一、型号含义

型号表示方法如下：

BL₂-(Q)-FF-()

额定功率：W /m Rated power:W/m

绝缘层、护套层代号：F：氟塑料 Code of insulated layer and sheath layer; flu oroplastics

Q为加强型，普通型不标注 Q for reinforced type;not marked for common type

芯线数：二芯220V为2，三芯380V为3 Core number:2 for two cores 220V;3 for three cores 380V

系列代号：BL为并联型 Series number: BL for parraller connection

例：BL2-Q-FF-20：表示绝缘材料为F46氟塑料二相220V，20W/米加强型恒功率电热带

BL3-FF-20：表示绝缘材料为F46氟塑料三相380V，20W/米普通型恒功率电热带

Type Meaning

Type-naming Method

Eg. BL2-Q-FF-20; Reinforced type constant power electrically-heated tape with F46 fluoroplastics insulation two-pharse 220V,20W/m;

BL3-FF-20; Common type constant power electrically-heated tape with F46 fluoroplastics insulation three-phrases 380V,20W/m

二、产品结构与工作原理

电源母线为二根/三根平行绝缘铜线，在内绝缘层上缠绕电热丝，并将电热丝每隔一定距离

(即‘发热节长’)与母线连接，形成连续并联电阻，母线通电后，各并联电阻发热，因而形成一条连续的加热带。

Product Structure and Working Theory

Power main lead consists of two pieces (three pieces) of insulated copper wire in parallel. Heating wire should be wrapped on inner insulation layer and connected with main lead with certain space(heating pitch) to form continuous parallel-connection resistance. One piece of continuous heating tape will come into being after current through main lead and heat from each parallel connection resistance.

三、产品规格及主要技术特性

1、二相220V恒功率电热带技术特性如表1

Specification & Main Technical Performance

Technical performance of two-phase 200V constant power electrically-heated tape listed in table 1

Table 1

产品型号 Type		额定功率 W/m Rated voltage	最大使用长度 M Max length for usage	流体最高维持温度 ℃ Max sustainable temperature of liquid	绝缘着色 Insulation color	内护套着色 Inner sheath color	外护套着色 Outer sheath color
普通型 Common type	加强型 Reinforced type						
BL ₂ -FF-10	BL ₂ -Q-FF-10	10	210	150	红、兰 read, blue	绿 green	黑 black
BL ₂ -FF-20	BL ₂ -Q-FF-20	20	180	120	红、兰 read, blue	绿 green	黑 black
BL ₂ -FF-30	BL ₂ -Q-FF-30	30	150	90	红、兰 read, blue	绿 green	黑 black
BL ₂ -FF-40	BL ₂ -Q-FF-40	40	140	65	红、兰 read, blue	绿 green	黑 black

特种电缆

2、三相380V恒功率电热带技术特性如表2

Technical performance of three-phase 380V constant power electrically-heated tape listed in table 2

Table 2

产品型号 Type		额定 功率 W/m Rated voltage	最大使 用长度 m Max length for usage	流体最高维持 温度℃ Max sustainable temperature of liquid	绝缘 着色 Insulation color	内护套 着色 Inner sheath color	外护套着 色 Outer sheath color
普通型 Common type	加强型Reinforced type						
BL ₃ -FF-30	BL ₃ -Q-FF-30	30	330	120	红、兰 read, blue	绿 green	黑 black
BL ₃ -FF-40	BL ₃ -Q-FF-40	40	280	100	红、兰 read, blue	绿 green	黑 black
BL ₃ FF-50	BL ₃ -Q-FF-50	50	275	80	红、兰 read, blue	绿 green	黑 black
BL ₃ FF-60	BL ₃ -Q-FF-60	60	250	60	红、兰 read, blue	绿 green	黑 black

注：流体最高维持温度：是指管道内介质需要维持的最高工艺温度，超过本表规定的不在本标准规定范围内。

Note: 1: Max sustainable temperature of liquid is that of process temperature required by medium in the pipes, except which is beyond the range of standard stipulated in the table.

3、电热带的电气性能指标

电热带的常态绝缘电阻不小于30MΩ/100m,介电强度2000V 1min不击穿。

Electric performance indices of electrically-heated tape

Normal insulated resistance of electrically-heated tape is no less than 30MΩ/100m. Dielectric strength is 2000V for 1min without puncture.

四、产品特点

恒功率电热带单位长度的发热量恒定，使用的电热带越长，办输出的总功率越大。此电热带在现场能按实际需要长度任意剪开使用，电热带比较柔软，能够紧贴在管道表面，便于更好的伴热。加强型伴热带不仅起着传热和散热作用，而且增强了电热带的机械强度。

Product Character

Heating volume of constant power electrically-heated tape for unit length is invariable. The longer electrically-heated tape you will use, the higher total output power you will get. There are many choices on the cable length according to the practical application occasion. Electrically-heated tape has the feature of softness, which is easy to be pastes tightly on the surface of pipe and easy to be heated. Reinforced type electrically-heated tape can not only transmit & emit heat, but also reinforce the mechanical force.

五、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%

特种电缆

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.

生产执行标准

采用Q/TK.TY.J.04.19-2001标准及GJB773标准

Executive standard:

Q/TK.TY.J.04.19-2001 standard and GJB773 standard

二、使用条件

- 1、电线导体最高工作温度为200℃和260℃，最低环境温度温度为-60℃；
- 2、额定电压：300V/500V。

Working Condition

- 1: Max working temperature of wire conductor is 200℃& 260℃.
Min. environment temperature is -60℃.
- 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、技术参数如下表

Main Technical Parameter

标称截面 (mm ²) Nominal cross section area	电线最大外径 (mm) Max. O.D of cable	载流量 (A) Current-loading capacity	20℃导体最大电阻 (Ω/km) Max. resistance of conductor at 20℃
0.3	1.55	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%

特种电缆

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，建筑行业中可作为500V及以下的照明及动力机械的阻燃耐老化导线。

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 500V in construction industry.

一、生产执行标准

采用Q/TK.TY.J.04.19-2001标准

Executive standard:

Q/TK.TY.J.04.19-2001

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。

Working Condition

- 1: Max working temperature of wire conductor is 125℃. Min. environment temperature is -50℃.
- 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、具有优良的阻燃、耐老化性能，氧指数≥43，使用寿命长。

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.

四、技术参数如下表

Main Technical Parameter

标称截面 (mm ²) 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%。

Delivery length

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

特种电缆

180℃电机绕组引接软电缆

180℃ Soft Cable for Motor Winding Connection

本产品适用于连续运行导体温度为180℃的电机绕组作引接线用。

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

一、 生产执行标准 JB 6213.4-92

Executive standard: JB 6213.4-92

二、 使用条件

Working Condition

- 1、连续运行导体最高温度为180℃；
- 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。

Max. temperature of conductor for continual working is 180℃.

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(mm²) 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(mm²) Nominal cross section area	平均外径上限 (mm) Max. average O.D		标称截面(mm²) Nominal cross section area	平均外径上限 (mm) Max. average O.D	
	500V	1000V		500V	1000V
0.75	3.7	4.1	16	10.0	10.5
1.0	3.9	4.3	25	12.1	12.6
1.5	4.2	4.6	35	14.1	14.6
2.5	5.3	5.7	50	16.5	17.6
4	6.2	6.6	70	18.8	19.3
6	7.0	7.4	95	21.5	21.9
10	8.7	9.2	--	--	--

六、 交货要求

Delivery Requirement

产品交货长度按双方协议规定，计量误差允许不超过±0.5%。

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

特种电缆

具有屏蔽和耐化学品功能的电缆

Power Cable with Shielding and Chemical Medicine Resistance

一、适用范围

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。

Application

The cable is widely used in the field of refinery, petrochemical industry and common chemical plant for transmitting & distributing power or controlling electrical return circuit, 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.

二、执行标准

参照GB9330-88及GB/T12706-2002标准。

Refer to GB9330-88 or GB/T12706-2002 standard.

三、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

Rated voltage U_0/U is $0.6/1kV$.
Long-term working temperature of cable conductor is $90^{\circ}C$.
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)
Environment temperature for installation is no less than $0^{\circ}C$.

四、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 jacket, shielding, chemical medicine resistance
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 jacket, galvanized steel tape armoring, PE outer sheath, 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 jacket, galvanized steel tape armoring, PE outer sheath, shielding, chemical medicine resistance

特种电缆

五、规格

specification

电缆型号 cable type	芯数 core number	导体标称截面 (mm ²) 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	
	3+2	
4+1	4~300	
		4~185
		4~240

电缆型号 cable type	导体标称截面 (mm ²) 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

六、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

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.

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

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.

七、交货长度

- 1、电缆根据双方的协议长度交货。
- 2、长度计量误差不超过±0.5%。

delivery length

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