



## 硅橡胶绝缘耐热控制电缆 Silicon rubber insulated heat resistant control cable

### 产品用途

本产品适用于交流额定电压450/750V及以下移动或固定敷设用电器仪表连接或信号传输，电缆具有较好的热稳定性，能在高温、高寒环境，腐蚀性中保持良好的电性能和柔软性，适用冶金、电力、石化等行业具有移动耐温防腐等特殊要求场合使用。

### 使用特性

- 1、额定电压 $U_0/U$ 为450/750V；
- 2、电缆导体的长期允许最高工作温度为180℃；
- 3、电缆的敷设温度应不低于-25℃；
- 4、推荐的允许弯曲半径：无铠装层的电缆，应不小于电缆外径的6倍；有铠装或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。

### 基本型号及名称 Type and description

型号Type	名称Description
KGG	硅橡胶绝缘和护套控制电缆 Silicon rubber insulated and sheathed control cables
KGGR	软铜导体硅橡胶绝缘和护套控制电缆 Silicon rubber insulated and sheathed flexible control cables
KGGP	硅橡胶绝缘和护套铜丝编织屏蔽控制电缆 Silicon rubber insulated and sheathed copper wire braided shielded control cables
KGGRP	软铜导体硅橡胶绝缘和护套铜丝编织屏蔽控制电缆 Silicon rubber insulated and sheathed copper wire braided shielded flexible control cables
KGGP2	硅橡胶绝缘和护套铜带屏蔽控制电缆 Silicon rubber insulated and sheathed copper tape shielded control cables
KGGP2-24	硅橡胶绝缘和护套铜带屏蔽钢带铠装控制电缆 Silicon rubber insulated and sheathed copper tape shielded steel tape armored control cables
KGG34	硅橡胶绝缘和护套钢丝铠装控制电缆 Silicon rubber insulated and sheathed steel wire armored control cables

注：表中未列型号按下面的型号说明组成。

Note: The type not listed in the table should be comprised according to following type explanation.

### 代号名称和含义 Code and meaning

项目 Item	代号 Code	说明 Description
系列代号 Series coding	K	控制电缆 Control cable
燃烧特性 Burning characteristic	—	非阻燃 Non flame retardant
	Z(A/B/C)	阻燃(A/B/C)级 Flame retardant grade (A/B/C)
	N	耐火 Fire resistant
	WDZ	无卤低烟阻燃 Low smoke halogen free flame retardant

### Application

This product is applied for movable or fixed laying electrical instrument connection or signal transmission of rated voltage up to and including a.c. 450/750V. Has properties of good thermal stability, and maintain electrical performance and flexibility in high temperature, extremely cold, corrosive environment. Thus it is widely used in special occasions such as metal refining, electric power, petro-chem industry etc.

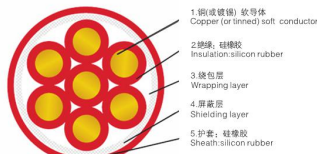
### Service Property

1. The rated voltage  $U_0/U$  of the cable should be 450/750V.
2. Maximum allowed operating temperature of cable conductor should be 180℃.
3. Cable laying temperature should be not less than -25℃.
4. Allowed bending radius of non-armored cable should be not less than 6 times outer diameter of the cable, of armored or copper tape shielded cable should be not less than 12 times outer diameter of the cable, of shielded flexible cable should be not less than 6 times outer diameter of the cable.

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项目 Item	代号 Code	说明 Description
燃烧特性 Burning characteristic	WDZN	无卤低烟阻燃耐火 Low smoke halogen free flame retardant fire resistant
	-	第1种或第2种导体 Class 1 and 2 copper conductor
导体 Conductor	R	第5种导体 Class 5 copper conductor
	L	铝导体 Aluminum conductor
绝缘 Insulation	G	硅橡胶绝缘 Fluoroplastic insulation
	V	聚氯乙烯护套 Silicon rubber sheath
护套或内护套 Sheath or inner sheath	VF	丁腈复合护套 NBR sheath
	P	铜丝编织屏蔽 Copper wire braided shield
	P2	铜带绕包屏蔽 Copper tape wrapped shield
屏蔽 Shield	P3	铝塑复合带绕包屏蔽 Aluminum polyester composite film wrapped shielded
	2	钢带铠装 Steel tape armor
	3	钢丝铠装 Steel wire armor
铠装 Armor	6	非磁性金属带铠装 Non-magnetic metal tape armor
	7	非磁性金属丝铠装 Non-magnetic metal wire armor
外护套 Outer sheath	2	聚氯乙烯护套, 丁腈复合护套 PVC sheath, NBR sheath
	4	硅橡胶护套 Silicon rubber sheath

产品结构示意图 Structure diagram



KGGRP 结构示意图 KGGRP cable structure diagram

主要技术指标

- 20°C时导体直流电阻符合GB/T3956规定
- 绝缘电阻常数应不小于150MΩ·km
- 成品电缆经受交流2.5kV/5min电压试验不击穿

Main technical index

- Conductor D.C. resistance at 20 °C complies with stipulations of GB/T3956.
- Insulation resistance constant should be not less than 150MΩ·km.
- Finished cable withstands a.c. 2.5kV for 5minutes without puncture.

基本电缆规格和结构参数 Cable specification and structural parameter

线芯×标称截面 Number of cores × nominal cross section area (mm <sup>2</sup> )	电缆参考外径 Cable reference diameter (mm)		电缆参考重量 Cable reference weight (kg/km)		线芯×标称截面 Number of cores × nominal cross section area (mm <sup>2</sup> )	电缆参考外径 Cable reference diameter (mm)		电缆参考重量 Cable reference weight (kg/km)	
	KGGR	KGGRP	KGGR	KGGRP		KGGR	KGGRP	KGGR	KGGRP
2×0.5	7.6	8.5	70	99	7×10	25.8	26.9	1086	1226
2×0.75	8.2	9.1	82	114	8×0.5	10.6	11.5	153	195
2×1.0	8.4	9.3	90	122	8×0.75	11.6	12.5	189	236
2×1.5	9.4	10.3	112	149	8×1.0	11.9	12.8	213	261
2×2.5	10.2	11.1	139	180	8×1.5	13.6	14.5	276	332
2×4	12.2	13.1	203	253	8×2.5	14.9	16.0	365	434
2×6	14.0	14.9	270	327	8×4	18.4	19.5	572	657
2×10	18.0	18.9	440	515	8×6	21.6	22.5	794	884
3×0.5	8.0	8.9	82	113	8×10	28.2	29.5	1335	1492
3×0.75	8.6	9.5	97	130	10×0.5	12.2	13.1	193	243
3×1.0	8.8	9.7	107	141	10×0.75	13.4	14.3	240	295
3×1.5	9.9	10.8	135	174	10×1.0	13.8	14.7	271	327
3×2.5	10.8	11.7	172	216	10×1.5	15.8	16.9	353	426
3×4	12.9	13.8	255	307	10×2.5	17.8	18.5	476	549
3×6	14.9	15.8	344	405	10×4	21.8	22.9	746	847
3×10	19.2	20.1	565	645	10×6	25.6	26.7	1036	1174
4×0.5	8.6	9.5	97	130	10×10	33.6	35.2	1752	1954
4×0.75	9.3	10.2	116	152	12×0.5	12.6	13.5	198	249
4×1.0	9.5	10.4	128	165	12×0.75	13.8	14.7	245	302
4×1.5	10.7	11.6	163	205	12×1.0	14.2	15.1	280	338
4×2.5	11.7	12.6	211	258	12×1.5	16.5	17.4	371	439
4×4	14.1	15.0	316	374	12×2.5	18.2	19.3	497	581
4×6	16.3	17.4	429	505	12×4	22.7	23.6	789	884
4×10	21.3	22.2	721	809	12×6	26.5	27.8	1083	1239
5×0.5	9.2	10.1	112	148	14×0.5	13.1	14.0	221	274
5×0.75	10.0	10.9	135	175	14×0.75	14.5	15.4	276	336
5×1.0	10.3	11.2	152	193	14×1.0	14.9	16.0	316	385
5×1.5	11.6	12.5	193	240	14×1.5	17.3	18.2	420	492
5×2.5	12.7	13.6	252	303	14×2.5	19.3	20.2	575	654
5×4	15.4	16.5	382	453	14×4	23.9	25.0	902	1030
5×6	18.1	19.0	530	605	14×6	28.1	29.4	1253	1409
5×10	23.4	24.5	878	987	16×0.5	13.6	14.7	248	302
7×0.5	9.9	10.8	129	168	16×0.75	15.2	16.3	308	378
7×0.75	10.8	11.7	158	202	16×1.0	15.9	16.8	361	426
7×1.0	11.1	12.0	179	224	16×1.5	18.2	19.1	470	545
7×1.5	12.6	13.5	230	281	16×2.5	20.3	21.2	645	729
7×2.5	13.8	14.7	305	361	19×0.5	14.5	15.6	280	347
7×4	17.0	17.9	474	544	19×0.75	16.3	17.1	353	426
7×6	19.7	20.8	647	738	19×1.0	16.7	17.6	414	483

第二章 控制电缆

第二章 控制电缆

续上表Continued

线芯×标称截面 Number of cores × nominal cross section area (mm <sup>2</sup> )	电缆参考外径 Cable reference diameter (mm)		电缆参考重量 Cable reference weight (kg/km)		线芯×标称截面 Number of cores × nominal cross section area (mm <sup>2</sup> )	电缆参考外径 Cable reference diameter (mm)		电缆参考重量 Cable reference weight (kg/km)	
	KGGR	KGGRP	KGGR	KGGRP		KGGR	KGGRP	KGGR	KGGRP
19×1.5	19.2	20.3	542	631	37×2.5	29.2	30.6	1403	1564
19×2.5	21.4	22.5	746	846	44×0.5	22.0	22.9	605	696
24×0.5	17.0	17.9	353	423	44×0.75	24.4	25.5	768	900
24×0.75	18.8	19.9	445	532	44×1.0	25.4	26.5	903	1039
24×1.0	19.6	20.5	522	603	44×1.5	29.6	31.0	1207	1371
24×1.5	22.8	23.7	694	789	44×2.5	33.0	34.6	1668	1882
24×2.5	25.4	26.5	953	1089	48×0.5	22.3	23.2	647	739
27×0.5	17.3	18.4	385	465	48×0.75	24.8	26.1	824	970
27×0.75	19.2	20.3	487	576	48×1.0	25.8	26.9	969	1108
27×1.0	20.0	20.9	572	655	48×1.5	30.1	31.5	1298	1464
27×1.5	23.3	24.2	763	860	48×2.5	33.5	35.1	1797	2014
27×2.5	25.9	27.0	1050	1190	52×0.5	22.9	24.2	691	825
30×0.5	17.9	19.0	419	502	52×0.75	25.5	26.8	882	1033
30×0.75	20.1	21.0	541	624	52×1.0	26.5	27.6	1039	1181
30×1.0	20.7	21.6	625	711	52×1.5	30.9	32.5	1392	1577
30×1.5	24.1	25.2	834	964	52×2.5	34.7	36.3	1963	2198
30×2.5	26.9	28.2	1152	1310	61×0.5	24.5	25.6	803	934
37×0.5	19.5	20.4	507	588	61×0.75	27.2	28.3	1026	1172
37×0.75	21.6	22.7	645	745	61×1.0	28.3	29.6	1207	1364
37×1.0	22.5	23.4	758	852	61×1.5	33.0	34.4	1618	1800
37×1.5	26.2	27.3	1013	1154	61×2.5	36.8	38.6	2264	2531

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