

丁腈绝缘控制软电缆 NBR insulated and sheathed flexible control cable

产品用途

本产品适用于交流额定电压450/750V及以下移动电
器仪表连接或信号传输, 电缆具有耐寒、防油、抗拉、耐
撕裂、柔软等特性, 适合冶金、电力、机械、港口等行业
具有移动等特殊要求场合使用。

使用特性

- 1、交流额定电压: U_0/U 450/750V
- 2、最高工作温度: 70℃ (阻燃型为105℃)
- 3、最低环境温度: 固定敷设-60℃; 非固定敷设-15℃
- 4、电缆安装敷设温度应不低于-25℃

Application

This product is applied for movable electrical instrument
connection or signal transmission of rated voltage up to and
including A.C. 450/750V. Has properties of cold resistant,
oilproofing, tensile resistant, tear resistant and flexible etc.
Thus it is widely used in special occasions such as metal
refining, electric power, machinery, port 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 70℃(105℃ for flame retardant type)
3. Minimum ambient temperature: -60℃(for fixed laying),
-15℃(for non-fixed laying)
4. Cable laying temperature should be not less than 0℃.
5. Allowed bending radius of single core cable should
be not less than 20 times outer diameter of the cable, of
multi-core cable should be not less than 15 times outer
diameter of the cable.

基本型号及名称 Type and description

| 型号 Type | 名称 Description |
|---------|--|
| KYVFR | 铜芯丁腈绝缘及护套控制软电缆 Copper core NBR insulated and sheathed flexible control cable |
| KYVFRP | 铜芯丁腈聚氯乙烯绝缘及护套铜丝编织屏蔽控制软电缆 Copper core NBR insulated and sheathed copper wire braided armored flexible control cable |

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 |
| | Y | 移动用系列 |
| 导体 Conductor | — | 第1种或第2种铜导体 Class 1 and 2 copper conductor |
| | R | 第5种铜导体 Class 5 copper conductor |
| 绝缘 Insulation | VF | 丁腈绝缘 NBR insulation |
| 护套 Sheath | VF | 丁腈护套 NBR sheath |
| 屏蔽 Shield | P | 铜丝编织屏蔽 Copper wire braided shield |
| | P2 | 铜带绕包屏蔽 Copper tape wrapped shield |
| | P3 | 铝塑复合带绕包屏蔽 Aluminum polyester composite film wrapped shielded |

主要技术指标

- 20°C时导体直流电阻符合GB/T3956规定
- 20°C时绝缘电阻不小于20MΩ.km
- 成品电缆经受交流3.0kV/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 at 20°C should be not less than 20MΩ.km.
- Finished cable withstand a.c. 3.0kV for 5 minutes without puncture.

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

| 线芯×标称截面 (mm²) Number of cores × nominal cross section area | 电缆参考外径 (mm) Cable reference diameter | | 电缆参考重量 (kg/km) Cable reference weight | | 线芯×标称截面 (mm²) Number of cores × nominal cross section area | 电缆参考外径 (mm) Cable reference diameter | | 电缆参考重量 (kg/km) Cable reference weight | |
|--|---|--------|--|--------|--|---|--------|--|--------|
| | KYVFR | KYVFRP | KYVFR | KYVFRP | | KYVFR | KYVFRP | KYVFR | KYVFRP |
| 2×0.5 | 7.2 | 7.5 | 60 | 78 | 10×1.5 | 15.6 | 16.1 | 336 | 398 |
| 2×0.75 | 7.8 | 8.1 | 71 | 90 | 10×2.5 | 18.4 | 18.9 | 481 | 555 |
| 2×1.0 | 8.0 | 8.3 | 78 | 98 | 12×0.5 | 11.7 | 12.0 | 187 | 219 |
| 2×1.5 | 9.0 | 9.3 | 98 | 121 | 12×0.75 | 13.0 | 13.9 | 233 | 288 |
| 2×2.5 | 10.4 | 10.7 | 132 | 160 | 12×1.0 | 14.0 | 14.5 | 288 | 342 |
| 3×0.5 | 7.5 | 7.8 | 72 | 90 | 12×1.5 | 16.1 | 16.6 | 384 | 448 |
| 3×0.75 | 8.2 | 8.5 | 86 | 107 | 12×2.5 | 19.0 | 19.9 | 553 | 648 |
| 3×1.0 | 8.4 | 8.7 | 96 | 117 | 14×0.5 | 12.3 | 13.2 | 210 | 262 |
| 3×1.5 | 9.5 | 9.8 | 123 | 148 | 14×0.75 | 14.2 | 14.7 | 281 | 336 |
| 3×2.5 | 11.0 | 11.3 | 170 | 200 | 14×1.0 | 14.7 | 15.2 | 324 | 381 |
| 4×0.5 | 8.1 | 8.4 | 86 | 106 | 14×1.5 | 16.9 | 17.4 | 435 | 502 |
| 4×0.75 | 8.8 | 9.1 | 103 | 125 | 14×2.5 | 20.0 | 20.9 | 630 | 730 |
| 4×1.0 | 9.1 | 9.4 | 116 | 140 | 16×0.5 | 13.5 | 14.0 | 252 | 303 |
| 4×1.5 | 10.3 | 10.6 | 151 | 178 | 16×0.75 | 14.9 | 15.4 | 312 | 371 |
| 4×2.5 | 12.0 | 12.3 | 211 | 244 | 16×1.0 | 15.4 | 15.9 | 361 | 421 |
| 5×0.5 | 8.7 | 9.0 | 99 | 122 | 16×1.5 | 17.7 | 18.2 | 485 | 556 |
| 5×0.75 | 9.5 | 9.8 | 120 | 145 | 16×2.5 | 21.4 | 21.9 | 725 | 812 |
| 5×1.0 | 9.8 | 10.1 | 136 | 162 | 19×0.5 | 14.1 | 14.6 | 285 | 340 |
| 5×1.5 | 11.1 | 11.4 | 178 | 208 | 19×0.75 | 15.6 | 16.1 | 356 | 417 |
| 5×2.5 | 13.0 | 13.9 | 252 | 307 | 19×1.0 | 16.1 | 16.6 | 412 | 476 |
| 7×0.5 | 9.9 | 9.6 | 123 | 147 | 19×1.5 | 18.6 | 19.1 | 558 | 633 |
| 7×0.75 | 10.2 | 10.5 | 150 | 177 | 19×2.5 | 22.5 | 23.0 | 837 | 929 |
| 7×1.0 | 10.5 | 10.8 | 172 | 200 | 24×0.5 | 16.2 | 16.7 | 350 | 414 |
| 7×1.5 | 12.0 | 12.3 | 228 | 261 | 24×0.75 | 18.0 | 18.5 | 439 | 511 |
| 7×2.5 | 14.7 | 15.2 | 348 | 405 | 24×1.0 | 18.6 | 19.5 | 510 | 603 |
| 8×0.5 | 9.9 | 10.2 | 136 | 162 | 24×1.5 | 22.0 | 22.5 | 713 | 802 |
| 8×0.75 | 10.9 | 11.2 | 168 | 197 | 24×2.5 | 26.2 | 26.9 | 1042 | 1161 |
| 8×1.0 | 11.3 | 11.6 | 193 | 223 | 27×0.5 | 16.5 | 17.0 | 381 | 447 |
| 8×1.5 | 13.5 | 14.0 | 275 | 327 | 27×0.75 | 18.4 | 18.9 | 480 | 554 |
| 8×2.5 | 15.8 | 16.3 | 391 | 453 | 27×1.0 | 19.0 | 19.9 | 559 | 654 |
| 10×0.5 | 11.4 | 11.7 | 166 | 197 | 27×1.5 | 22.5 | 23.0 | 783 | 874 |
| 10×0.75 | 12.6 | 13.5 | 205 | 258 | 27×2.5 | 26.8 | 27.5 | 1149 | 1292 |
| 10×1.0 | 13.0 | 13.9 | 235 | 290 | 30×0.5 | 17.1 | 17.6 | 415 | 483 |

续上表Continued

| 线芯×标称截面 (mm²) Number of cores × nominal cross section area | 电缆参考外径 (mm) Cable reference diameter | | 电缆参考重量 (kg/km) Cable reference weight | | 线芯×标称截面 (mm²) Number of cores × nominal cross section area | 电缆参考外径 (mm) Cable reference diameter | | 电缆参考重量 (kg/km) Cable reference weight | |
|--|---|--------|--|--------|--|---|--------|--|--------|
| | KYVFR | KYVFRP | KYVFR | KYVFRP | | KYVFR | KYVFRP | KYVFR | KYVFRP |
| 30×0.75 | 19.0 | 19.5 | 622 | 599 | 48×0.75 | 23.6 | 24.1 | 805 | 901 |
| 30×1.0 | 19.7 | 20.6 | 611 | 710 | 48×1.0 | 24.4 | 25.1 | 944 | 1074 |
| 30×1.5 | 23.3 | 23.8 | 856 | 961 | 48×1.5 | 28.5 | 29.2 | 1298 | 1451 |
| 30×2.5 | 27.8 | 28.5 | 1260 | 1409 | 48×2.5 | 35.0 | 35.9 | 2038 | 2214 |
| 37×0.5 | 18.3 | 19.2 | 491 | 582 | 52×0.5 | 21.7 | 22.2 | 676 | 766 |
| 37×0.75 | 20.8 | 21.3 | 641 | 724 | 52×0.75 | 24.2 | 24.7 | 860 | 959 |
| 37×1.0 | 21.5 | 22.0 | 749 | 836 | 52×1.0 | 25.1 | 25.8 | 1012 | 1145 |
| 37×1.5 | 25.0 | 25.7 | 1025 | 1157 | 52×1.5 | 29.5 | 30.6 | 1405 | 1606 |
| 37×2.5 | 30.1 | 31.2 | 1529 | 1735 | 52×2.5 | 36.0 | 36.9 | 2155 | 2368 |
| 44×0.5 | 20.8 | 21.3 | 584 | 678 | 61×0.5 | 22.9 | 23.4 | 775 | 868 |
| 44×0.75 | 23.2 | 23.7 | 751 | 845 | 61×0.75 | 25.6 | 26.3 | 986 | 1123 |
| 44×1.0 | 24.0 | 24.5 | 880 | 978 | 61×1.0 | 26.5 | 27.2 | 1163 | 1304 |
| 44×1.5 | 28.0 | 28.7 | 1206 | 1356 | 61×1.5 | 31.8 | 32.3 | 1676 | 1832 |
| 44×2.5 | 34.4 | 35.3 | 1865 | 2068 | 61×2.5 | 38.5 | 39.2 | 2520 | 2757 |
| 48×0.5 | 21.1 | 21.6 | 635 | 720 | | | | | |