

通信电源用电力软电缆

Power Flexible Cable for telecommunication Power Sply Application

本产品适用于交流额定电压0.6/1KV及以下的电力系统中, 作输配电能用。产品除具有聚氯乙烯绝缘电缆已有的优良性能外, 还具有柔软、易弯曲等特点。

It is used to transmit and distribute power of A.C rated voltage 0.6/1KV or lower for power system. It has not only better performance of PVC insulation power cable, but also advantages of softness and flexibility as well.

一、生产执行标准 YD/T 1173-2010

Executive standard: YD/T 1173-2010

二、型号及名称

Type and Description

| 型号Type | 名称Description |
|--------|--|
| RV | 铜芯聚氯乙烯绝缘电力软电缆 Soft power cable with Cu core, PVC insulation |
| RVZ | 铜芯聚氯乙烯绝缘阻燃型电力软电缆 Soft power cable with Cu core, PVC insulation, flame retardance |
| RVV | 铜芯聚氯乙烯绝缘聚氯乙烯护套电力软电缆 Soft power cable with Cu core, PVC insulation and sheath |
| RVVZ | 铜芯聚氯乙烯绝缘聚氯乙烯护套阻燃型电力软电缆 Soft power cable with Cu core, PVC insulation & sheath, flame retardance |
| RVV22 | 铜芯聚氯乙烯绝缘钢带铠装聚氯乙烯护套电力软电缆 Soft power cable with Cu core, PVC insulation & sheath, steel tape armor |
| RVVZ22 | 铜芯聚氯乙烯绝缘钢带铠装聚氯乙烯护套阻燃型软电缆 Soft power cable with Cu core, PVC insulation & sheath, steel tape armor, flame retardance |

三、生产范围

Production Scope

| 型号 Type | 芯数 Core number | 标称截面mm ² Nominal cross section area |
|--------------------------------|-------------------|---|
| RV RVV RVZ RVVZ | 1 | 1.5~400 |
| RVV RVVZ RVV22 RVVZ22 | 2 | 1.5~185 |
| RVV RVVZ RVV22 RVVZ22 | 3 | 1.5~300 4~300 |
| RVV RVVZ RVV22 RVVZ22 | 4 | 4~185 |
| RVV RVVZ RVV22 RVVZ22 | 3+1 | 4~300 4~240 |
| RVV RVVZ RVV22 RVVZ22 | 3+2 | 4~240 10~240 |

四、使用条件

- 1、电缆的导体长期允许最高工作温度为70℃;
- 2、电缆敷设时最低环境温度为0℃;
- 3、电缆允许弯曲半径: 非铠装电缆不小于电缆外径的8倍; 铠装型电缆不小于电缆外径的20倍;
- 4、短路时(最长持续时间不超过5S), 电缆导体的最高工作温度为160℃;

Working Condition

- 1: Max temperature of cable conductor for Long-term working is 70℃.
- 2: Min. environment temperature for installing cable is 0℃.
- 3: Bending radius allowed by cable:
It will be no less than 8 times that of cable O.D for inarmored cable and 20 times that of cable O.D for armored cable.
- 4: Max. working temperature of cable conductor is 160℃ during short circuit(the longest lasting time shall be no more than 5 seconds).

五、主要技术参数

- 1、20℃时导体最大直流电阻值应满足下面的规定:

Main Technical Parameter

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

| | | | | | | | | | |
|--|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 标称截面mm ² Nominal cross section area | 1.5 | 2.5 | 4 | 6 | 10 | 16 | 25 | 35 | 50 |
| 20°C时导体最大直流电阻Ω/km Max. DC resistance of conductor at 20°C | 13.3 | 7.98 | 4.95 | 3.30 | 1.91 | 1.21 | 0.780 | 0.554 | 0.326 |
| 标称截面mm ² Nominal cross section area | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 | 500 |
| 20°C时导体最大直流电阻Ω/km Max. DC resistance of conductor at 20°C | 0.272 | 0.206 | 0.161 | 0.129 | 0.106 | 0.0801 | 0.0641 | 0.0495 | 0.0391 |

2. 70°C时最小绝缘电阻

Min insulation resistance at 70°C

| 标称截面mm ² Nominal cross section area | 70°C时最小绝缘电阻M.Ω.km Min insulation resistance at 70°C | 标称截面mm ² Nominal cross section area | 70°C时最小绝缘电阻M.Ω.km Min insulation resistance at 70°C |
|---|--|---|--|
| 1.5 | 0.010 | 70 | 0.0032 |
| 2.5 | 0.009 | 95 | 0.0032 |
| 4 | 0.007 | 120 | 0.0029 |
| 6 | 0.006 | 150 | 0.0029 |
| 10 | 0.0056 | 185 | 0.0029 |
| 16 | 0.0046 | 240 | 0.0028 |
| 25 | 0.0044 | 300 | 0.0028 |
| 35 | 0.0038 | 400 | 0.0026 |
| 50 | 0.0037 | / | / |

试验条件: Testing condition

① 验长度: 5m。

② 浸水时间: 1h。

③ 水温: 70°C。

1: Testing length: 5m.

2: Time for immersion in the water is one hour.

3: Temperature of water is 70°C

3. 工频交流耐压试验 成品电缆应经受下表规定的交流50Hz耐电压试验而不应击穿。

A.C. voltage test under power frequency

The finished cable shall bear A.C. voltage test of 50Hz listed in the following table without puncture.

| 电缆芯数 Core No. | 试验方法 Testing method | 试样长度m Sample length | 电压V Voltage | | 持续时间 Lasting time |
|----------------------------------|---------------------------------------|------------------------------|-----------------------|-------------------------|----------------------|
| | | | 额定电压 Rated voltage | 试验电压 Testing voltage | |
| 单芯* Single core | 浸水1h Immersing in the water for 1h | 制造长度 Manufacturing length | 450/750 | 2500 | 5min |
| 多芯及铠装 Multi-core and armoring | 相间 interphase | | 600/1000 | 3500 | |

* 适用于RV型及RVZ型。

*Suitable for RV type and RVZ type

六、电缆近似外径及载流量

与同规格和普通聚氯乙烯绝缘聚乙烯护套电力电缆相比, 电缆的外径一般增加: 导体截面为95mm²及以下, 外径增加2~10mm; 导体截面为120mm²及以上, 外径增加12~20mm; 电缆的重量一般增加4%~10%。软电力电缆允许的载流量可参照同规格VV系列电力电缆的载流量值, 下降6%~10%。

Approximate outer diameter and current-loading capacity of cable

By comparing with common power cable of the same specification with PVC insulation and sheath, cable outer diameter is bigger by 2~10mm for cable with cross section of 95 95mm² or lower and by 12~20mm for cable with cross section of 120 mm² or higher. And cable weight generally remains heavier by 4%~10%. About current-loading capacity allowed by soft power cable, you can refer to that of VV series power cable of the same specification with a drop of 6%~10%.

七、交货长度

根据双方协议, 允许任何长度的电缆交货。长度计量误差不得超过±0.5%。

Delivery Length

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