

Overhead Insulated Power Cable

This overhead insulated power cable is composed of compacted conductors and weather-resistant insulation with semi-conductive shielding. It is suitable for urban and town power transmission projects, offering high safety and reliability.

额定电压 1kV、10kV 架空绝缘电力电缆

该产品由高压导体和绝缘层及相应中导体屏蔽层组成，具有架空绝缘的机械性能，又具有电力电缆的安全性能特点，与裸电线相比具有架设间距小、安全可靠性高、耐大气老化性能优异等特点。适用于：城镇输电工程优先选用的电缆品种。

• 电缆的执行标准

GB 2327—90 1kV 架空绝缘电缆
(等效 IEC 60227, IEC 227 标准)

GB 6050—93 10kV 架空绝缘电缆

• 架空绝缘电力电缆使用特性：

1) 额定电压 1kV、10kV。

2) 电缆导体最高工作温度。

交联聚乙烯绝缘：90℃

高密度聚乙烯绝缘：75℃

3) 短路时(最长持续时间不超过 5s)电缆

导体的最高温度。

交联聚乙烯绝缘：200℃

高密度聚乙烯绝缘：150℃。

4) 电缆敷设环境温度不低于-20℃。

5) 电缆允许弯曲半径。

A、1kV 架空绝缘电缆

电缆外径小于 25mm 时应不小于 4D。

电缆外径为 25mm 及以上者应不小于 4D。

B、10kV 架空绝缘电缆

单芯电缆 20(D+d) ≤ 500mm。

多芯电缆 15(D+d) ≤ 500mm。

式中 D——电缆的外径。

d——电缆导体的实际外径。

Product Overview

High-Performance Overhead Power Transmission

This overhead insulated power cable is engineered for urban and town power transmission projects, combining the mechanical resilience of overhead lines with the safety characteristics of power cables. Featuring compacted conductors and weather-resistant insulation, it offers superior resistance to atmospheric aging compared to bare wires. Its design allows for smaller installation spacing, ensuring high safety and reliability in diverse environmental conditions.

Technical Specifications

Insulation Materials

- Cross-linked polyethylene (XLPE)
- High-density polyethylene (HDPE)

Voltage Ratings

1kV, 10kV

Operating Limits

Max Operating Temperature

90 °C

XLPE Insulation

75 °C

HDPE Insulation

Max Short-Circuit Temperature (5s)

250 °C

XLPE Insulation

150 °C

HDPE Insulation

Installation Requirements

Bending Radius (1kV Cables)

| Cable Outer Diameter | Min. Bending Radius |
|----------------------|---------------------|
| < 25mm | 4D |
| ≥ 25mm | 6D |

Bending Radius (10kV Cables)

| Cable Type | Calculation Formula |
|-------------|------------------------------|
| Single-core | $20(D+d) \pm 5\% \text{ mm}$ |
| Multi-core | $15(D+d) \pm 5\% \text{ mm}$ |

| | |
|----------------------------------|--------|
| Minimum Installation Temperature | -20 °C |
|----------------------------------|--------|

Compliance

Execution Standards

- GB/T 12527-90 (1kV)
- GB/T 14049-93 (10kV)
- IEC 502
- IEC 227