# FEICHUN CABLE

安徽飞纯特种电缆有限公司

Anhui Feichun Special Cable Co., Ltd.

# TECHNICAL SPECIFICATION SHEET

Copper Cable, XLPE Insulated, PVC Sheathed

Rated Voltage: 0.6/1 kV

## 1. PRODUCT DESCRIPTION

Low voltage power cable with stranded copper conductor, cross-linked polyethylene (XLPE) insulation, and polyvinyl chloride (PVC) outer sheath. Designed for fixed installation in industrial and commercial applications for power distribution systems.

## 2. CONSTRUCTION DETAILS

| | |
|---|---|
| **Conductor** | Stranded copper conductor, Class 2 as per IEC 60228 |
| **Insulation** | Cross-linked polyethylene (XLPE), rated at 90°C |
| **Sheath** | Polyvinyl chloride (PVC), Type ST2 to IEC 60502, Black |
| **Rated Voltage (Uo/U)** | 0.6/1 kV |
| **Test Voltage** | 3.5 kV AC for 5 minutes |
| **Maximum Conductor Temperature** | 90°C (continuous operation)<br>160°C (short circuit, max 5s, ≤300 mm²)<br>140°C (short circuit, max 5s, >300 mm²) |
| **Minimum Ambient Temperature** | 0°C (cable shall be pre-heated if ambient temperature is below 0°C) |
| **Minimum Bending Radius** | Single core: 20(d+D) ± 5%<br>Multi-core: 15(d+D) ± 5% |


FEICHUN SPECIAL CABLES

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## 3. FEATURED PRODUCT RANGE

The following configurations represent our primary stock items with expedited availability:

- 4C 35 mm² CU/XLPE/PVC with 1C 16 mm² CU/PVC/ECC
- 3×50 + 25 mm² CU/XLPE/PVC with 1C 25 mm²
- 3×70 + 35 mm² with 1C 35 mm²
- 3×70 + 35 mm² with 1C 35 mm² (DP-operation feed)
- 3×95 + 50 mm² with 1C 50 mm²
- 3×120 + 70 mm² with 1C 70 mm²
- 3×150 + 70 mm² with 1C 70 mm²
- 3×240 + 120 mm² with 1C 120 mm²
- 4C 70 mm² with 1C 70 mm²

## 4. TECHNICAL SPECIFICATIONS - COMPLETE RANGE

*Note: Highlighted configurations indicate standard stock items with priority availability.*

| Cable Configuration | Conductor Cross-section | Insulation Thickness (mm) | Sheath Thickness (mm) | Approx. O.D. (mm) | Approx. Weight (kg/km) | Max. DC Resistance at 20°C (Ω/km) | Current Rating in Air (A) | Current Rating in Soil (A) |
|---|---|---|---|---|---|---|---|---|
| **4C 35 mm² + 1C 16 mm² ECC** | **4×35 + 1×16** | **0.9** | **1.8** | **26.9** | **1863** | **0.524** | **125** | **155** |
| **3×50 + 1×25 mm²** | **3×50 + 1×25** | **1.0** | **1.9** | **28.8** | **2633** | **0.387** | **160** | **185** |
| **3×70 + 1×35 mm²** | **3×70 + 1×35** | **1.1** | **2.0** | **32.4** | **3565** | **0.268** | **200** | **225** |
| **3×70 + 1×35 mm² (DP-operation feed)** | **3×70 + 1×35** | **1.1** | **2.0** | **32.4** | **3565** | **0.268** | **200** | **225** |
| **3×95 + 1×50 mm²** | **3×95 + 1×50** | **1.1** | **2.1** | **35.6** | **4735** | **0.193** | **245** | **270** |
| **3×120 + 1×70 mm²** | **3×120 + 1×70** | **1.2** | **2.3** | **41.1** | **5977** | **0.153** | **285** | **310** |
| **3×150 + 1×70 mm²** | **3×150 + 1×70** | **1.4** | **2.4** | **43.6** | **7276** | **0.124** | **325** | **345** |
| **3×240 + 1×120 mm²** | **3×240 + 1×120** | **1.7** | **2.7** | **54.2** | **11567** | **0.0754** | **440** | **450** |
| **4C 70 mm² + 1C 70 mm²** | **4×70 + 1×70** | **1.1** | **2.0** | **36.8** | **4450** | **0.268** | **200** | **225** |
| 4×10 + 1×6 mm² | 4×10 + 1×6 | 0.7 | 1.8 | 18.3 | 649 | 1.83 | 60 | 77 |
| 4×16 + 1×10 mm² | 4×16 + 1×10 | 0.7 | 1.8 | 21.1 | 965 | 1.15 | 83 | 105 |
| 4×25 + 1×16 mm² | 4×25 + 1×16 | 0.9 | 1.8 | 24.5 | 1456 | 0.727 | 105 | 125 |
| 4×185 + 1×95 mm² | 4×185 + 1×95 | 1.6 | 2.5 | 49.1 | 9055 | 0.0991 | 375 | 390 |
| 4×300 + 1×150 mm² | 4×300 + 1×150 | 1.8 | 3.1 | 66.3 | 14321 | 0.0601 | 505 | 515 |

## 5. APPLICABLE STANDARDS

- IEC 60502-1: Power cables with extruded insulation and their accessories for rated voltages from 1 kV up to 30 kV
- IEC 60228: Conductors of insulated cables
- GB/T 12706.1-2008: Power cables with extruded insulation and their accessories for rated voltages from 1kV up to 35kV
- BS 5467: Electric cables - Thermosetting insulated, armoured cables for voltages of 600/1000 V and 1900/3300 V
- DIN VDE 0276: Power cables - Cables with extruded insulation for rated voltages from 0.6/1 kV up to 6/10 kV

## 6. APPLICATIONS

**Recommended Applications:**

- Power distribution in industrial plants
- Fixed installation in cable trays and conduits
- Indoor and outdoor installations (with appropriate protection)
- Power supply for motors and equipment
- Building infrastructure and commercial installations

**Installation Conditions:**

- The cable is suitable for installation in dry, moist, and wet locations
- Can withstand moderate mechanical stress during installation
- Not suitable for direct burial without additional mechanical protection
- Single core cables shall not be installed in magnetic ducts

## 7. QUALITY CERTIFICATIONS

CE | CCC | KEMA | ISO 9001:2015 | VDE | RoHS

## 8. ORDERING INFORMATION

When placing an order, please specify the following information:

1. Cable designation and rated voltage (0.6/1 kV)
2. Applicable standard (IEC/BS/GB/DIN)
3. Number of cores and conductor cross-section
4. Conductor material (copper/tinned copper)
5. Insulation type (XLPE)
6. Armoring requirement (if applicable)
7. Sheath color and material (standard: Black PVC)
8. Required cable length and delivery drum size
9. Special marking requirements
10. Additional testing or certification requirements

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