Anhui Feichun Special Cable Co., Ltd.

安徽飞纯特种电缆有限公司

Excellence in Special Cable Engineering & Manufacturing

AFC

TECHNICAL SPECIFICATION SHEET — LOW VOLTAGE POWER CABLES

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1. Product Overview

This specification defines the technical requirements for Low Voltage Power Cables rated 600V to 1kV, manufactured by Anhui Feichun Special Cable Co., Ltd. These cables are engineered for industrial power distribution applications requiring enhanced mechanical protection, fire safety performance, and long-term reliability in demanding environments.

All products covered under this specification comply with applicable national and international standards and are subject to rigorous quality control throughout the manufacturing process.

2. Detailed Cable Specifications

Type MC-LS (Low Smoke) Steel Tape Armor Cable

SPEC-001

CABLE ELEC 126.7mm² 1×4C 0.6kV STA | Insulation: XP LE-LSZH-STA

Configuration	**4/C 250 kcmil (126.7 mm²)**
Voltage Rating	600V / 1kV
Cable Type	MC-LS (Metal Clad – Low Smoke)
Conductor	Stranded Copper, Class B/C Compressed
Insulation	Cross-linked Polyethylene (XP/XLPE), Low Emission
Armor Type	Steel Tape Armor (STA), Interlocked
Outer Jacket	LSZH (Low Smoke Zero Halogen)
Temperature Rating	90°C (Continuous), 130°C (Emergency), 250°C (Short Circuit)
Fire Performance	IEC 60332-1, IEC 60332-3 Cat. A, IEC 61034 (Low Smoke)

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Type TC-ER Tray Cable with Ground

SPEC-002

CABLE ELEC 126.7mm² 3×1C+T 1kV XLPE-SP | Triplex Configuration

Configuration	**3/C 250 kcmil (126.7 mm²) Triplex + Ground**
Voltage Rating	600V
Cable Type	TC-ER (Tray Cable – Exposed Run)
Conductor	Stranded Copper, Compact
Insulation	XHHW-2 / XLPE (Cross-linked Polyethylene)
Ground Conductor	Insulated Equipment Grounding Conductor
Outer Jacket	PVC (Polyvinyl Chloride), Sunlight Resistant
Temperature Rating	90°C Wet/Dry
Installation	Cable Tray, Conduit, Direct Burial, Exposed Runs

Double Armored Power Cable (5-Core)

SPEC-003

CABLE ELEC 107.22mm² 1×5C 1kV STA+SWA | Heavy Duty Industrial

Configuration	**5/C 4/0 AWG (107.22 mm²)**
Voltage Rating	600V / 1000V
Conductor	Stranded Annealed Copper, Class 2
Insulation	XLPE (Cross-linked Polyethylene)
Inner Armor	Steel Tape Armor (STA)
Outer Armor	Steel Wire Armor (SWA), Galvanized
Bedding/Serving	Extruded PVC Inner Sheath
Outer Jacket	PVC or PE Oversheath
Mechanical Protection	Enhanced crush, impact, and rodent resistance

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Double Armored Power Cable (3-Core + Ground) — SPEC-004

CABLE ELEC 33.63mm² 1×3C+T 1kV STA+SWA | With Grounding Conductor

Configuration	**3/C 2 AWG (33.63 mm²) + Ground**
Voltage Rating	600V
Conductor	Stranded Annealed Copper
Ground Conductor	Reduced Neutral / Grounding Conductor
Insulation	XLPE (Cross-linked Polyethylene)
Armor Configuration	Double Armored: Steel Tape (STA) + Steel Wire (SWA)
Outer Jacket	PVC Oversheath, Black
Temperature Rating	90°C (Continuous Operation)

Custom Multi-Core Bundle Cable (18-Core) — SPEC-005

CABLE ELEC 253.3mm² 3×6×1C 0.6kV XLPE | Custom Bundle Configuration

Configuration	**18/C 500 kcmil (253.3 mm²) — Config: 3×6×1C**
Bundle Structure	3 Groups × 6 Single Conductors per Group
Voltage Rating	600V
Conductor	Stranded Copper, 500 kcmil per Conductor
Insulation	XLPE (Cross-linked Polyethylene)
Armor Type	Steel Armor (Interlocked or Corrugated)
Outer Jacket	LSZH (Low Smoke Zero Halogen)
Phase Identification	Color Coded or Numbered Cores per Group
Application	High-capacity feeder circuits, Industrial substations

3. Applicable Standards & Certifications

IEC 60502-1
Power Cables 1kV–3kV

UL 1569
Metal-Clad Cables

UL 1277
TC-ER Tray Cables

IEC 60332-3
Flame Propagation

IEC 61034
Smoke Density

GB/T 12706
Chinese National Standard

4. Typical Applications

- Industrial Power Distribution Systems
- Manufacturing Plants & Facilities
- Oil, Gas & Petrochemical Installations
- Commercial Building Infrastructure
- Mining & Underground Applications
- Marine & Offshore Platforms

5. Quality Assurance

All cables manufactured under this specification undergo comprehensive testing including conductor resistance measurement, insulation resistance testing, high voltage withstand testing, and mechanical property verification. Certificates of conformance and test reports are available upon request for each production batch.