



ALUMINIUM POWER CABLES

Why Choose Sahra Kablo?

- Reliability
- 45 years experience
- Only Aluminum Cable
- Custom design products
- Wide product range
- Short lead time
- Capability of producing flexible solutions
- Modern production facility
- High product quality
- Always Aiming to be the best, not the biggest
- Well-Versed Team





AERIAL BUNDLED CABLES



Application

- Better choice because of flexibility for rerouting as demanded by changes in urban development plan
- In hilly terrains where cost of erection of overhead lines or underground cable becomes very high
- As replacement of bare lines where high degree of stability of supply voltage is of importance
- As reinforcement of existing system without increasing voltage with limited budget
- Between Power cables and Overhead conductors
- Instead of bare conductors at low voltage networks
- In developing urban complex
- For temporary supplies
- · In theft prone areas

Advantages

- Lower voltage drop, higher current carrying capacitances vis-à-vis better voltage regulation and low inductance leading to low impedance of lines
- · Insulation prevents corrosion of the conductor and danger risk of touching live conductor
- Perfect for installation, erection and stringing in rural distribution in difficult terrains
- Longer spans and longer distance lines are possible with better system stability
- Can stand in close proximity to trees and will not generate sparks if touched
- Possible faults are eleminated due to destruction of trees
- Electricity theft is made harder and more obvious to detect
- · Lightweight and cheaper than power cables
- Much safer than bare Conductors





NFA 2X



Construction

- Aluminium Compacted Conductor
- Black XLPE Insulation
- Longitudinal Ridges- Public Lighting
- Insulated Alloy / Almelec Porter
- Paper Separation (Optional)

AsXSn



Construction

- Aluminium Compacted Conductor
- Black XLPE Insulation
- Longitudinal Ridges
- Self Supporting Porter

AXKA



Construction

- Aluminium Compacted Conductor
- Black XLPE Insulation
- Longitudinal Ridges- Public Lighting
- Bare Alloy Porter

AMKA



- Aluminium Compacted Conductor
- Black HDPE Insulation
- Longitudinal Ridges
- Bare Alloy Porter



TWISTED CABLE



Construction

- Aluminium Compacted Conductor
- Black XLPE Insulation
- Longitudinal Ridges
- Public Lighting
- Insulated Alloy / Almelec Porter

BAXB



Construction

- Aluminium Compacted Conductor
- Black XLPE Insulation
- Longitudinal Ridges
- Public Lighting
- Insulated Alloy / Almelec Porter

AER



Construction

- Aluminium Compacted Conductor
- Black HDPE Insulation
- Longitudinal Ridges
- Public Lighting
- Bare Alloy Porter

ARE4RX



- Aluminium Compacted Conductor
- Black XLPE Insulation
- Grey XLPE Sheath
- Self Supporting Porter



СИП1 - СИП2



Construction

- Aluminium Compacted Conductor
- СИП 1 Black LDPE Insulation
- СИП 2 Black XLPE Insulation
- Longitudinal Ridges
- Bare Alloy or ACSR Porter

СИП1А - СИП2А



Construction

- Aluminium Compacted Conductor
- СИП 1A Black LDPE Insulation
- СИП 2A Black XLPE Insulation
- Longitudinal Ridges
- Insulated Alloy or ACSR Porter

СИП4 - СИП5



Construction

- Aluminium Compacted Conductor
- СИП 4 Black LDPE Insulation
- СИП 5 Black XLPE Insulation
- Longitudinal Ridges
- Self Supporting Porter

E-A2Y / E-XA2Y



- Aluminium Compacted Conductor
- XLPE Insulation
- Longitudinal Ridges
- Public Lighting
- Self Supporting Porter



СИП3

6 / 10 kV 12 / 20 kV



Construction

- Watertight Compacted AAAC
- XLPE Insulation

СИП3

6 / 10 kV 12 / 20 kV



Construction

- Watertight Compacted ACSR
- XLPE Insulation

PAS-W - AAsXSn

6 / 10 kV 12 / 20 kV



Construction

- Watertight Compacted AAAC
- XLPE Insulation

MV 1 Core Aerial Cable



- Watertight Compacted ACSR
- Inner Semi Conductive Layer
- XLPE Insulation
- PVC or HDPE Outer Sheath



BLL-T / BLX-T



Construction

- Watertight Compacted AAAC or ACSR
- Inner Semi Conductive Layer
- XLPE Insulation
- BLL-T HDPE Green Outer Sheath
- BLX-T Black XLPE Outer Sheath

AHXAMK-WM



Construction

- Watertight Aluminium Compacted Conductor
- Inner Semi Conductive Layer
- XLPE Insulation- Outer Semi Conductive Layer
- Water Swellable Tape
- Aluminium Plastic Laminate
- Black HDPE Outer Sheath
- Insulated Galvanised Steel Porter

MV Aerial Bundled Cable

6 / 10 kV



Construction

- Watertight Aluminium Compacted Conductor
- Inner Semi Conductive Layer
- XLPE Insulation
- Outer Semi Conductive Layer
- Copper Screening
- Black HDPE Outer Sheath
- Insulated Galvanised Steel Porter

MV Aerial Bundled Cable

12 / 20 kV



- Watertight Aluminium Compacted Conductor
- Inner Semi Conductive Layer
- XLPE Insulation
- Outer Semi Conductive Layer
- Copper Screening
- Black HDPE Outer Sheath
- Insulated Galvanised Steel Porter



ALUMINIUM UNDERGROUND CABLES

Application

- Unarmoured cables are used preferably for installation indoors, in cable ducts and in industrial plants or switching stations underground installation with additional protection where mechanical damage is unexpected
- Armoured Cables can be used where mechanical damaged is expected

Conductor



RE - Solid Round



RM - Stranded Round



SE - Solid Sector Shaped



SM - Stranded Sector Shaped

Insulation

- PVC
- XLPE
- PE
- HFFR
- MICA TAPE

Filler

- PE
- PVC
- RubberHFFR

Screening

- Round Copper Wire & Copper Binding Tape
- Wave Form Round Copper Wire & Copper Binding Tape

Armouring

- Galvanized Round Steel Wire
- Galvanized Flat Steel Wire
- Galvanized Double Steel Tape
- Aluminium Wire (for One Core)

Outer Sheath

- PVC
- HDPE
- HFFR / LSOH
- HF FE 180 / E 90





NAYY - NA2XY RE / RM



Construction

- Aluminium Round Compacted Conductor
- PVC or XLPE Insulation
- Filler
- PVC Outer Sheath

NAYY - NA2XY SM



Construction

- Aluminium Sector Shape Compacted Conductor
- PVC or XLPE Insulation
- Filler
- PVC Outer Sheath

NAYY - NA2XY SE



Construction

- Aluminium Sector Shape Solid Conductor
- PVC or XLPE Insulation
- Filler
- PVC Outer Sheath

NAY2Y - NA2X2Y



- Aluminium Conductor (RM-RE-SE-SM)
- PVC or XLPE Insulation
- Filler
- HDPE Outer Sheath



NAYBY - NA2XBY



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- PVC or XLPE Insulation
- Inner Sheath
- Galvanized Double Steel Tape
- PVC Outer Sheath

NAYBY - NA2XBY



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- PVC or XLPE Insulation
- Inner Sheath
- Galvanized Double Steel Tape
- PVC Outer Sheath

NAYRY - NA2XRY



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- PVC or XLPE Insulation
- Inner Sheath
- Galvanized Round Steel Wire
- PVC Outer Sheath

NAYFGbY - NA2XFGbY



- Aluminium Conductor (RM-RE-SE-SM)
- PVC or XLPE Insulation
- Inner Sheath
- Galvanized Flat Steel Wire
- Galvanized Steel Binding Tape
- PVC Outer Sheath



NAYCY - NA2XCY



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- PVC or XLPE Insulation
- Inner Sheath
- Copper Concentric Screen
- Copper Binding Tape
- PVC Outer Sheath

NAYCWY - NA2XCWY V-VMvKhsas



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- PVC or XLPE Insulation
- Inner Sheath
- Wave Form Copper Wire
- Copper Binding Tape
- Pilot Wires (Optional)
- PVC Outer Sheath

AKKJ - AMCMK V-VMvKhsas



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- PVC Insulation
- Inner Sheath or Lapped Tape
- Copper Concentric Screen
- Copper Binding Tape
- Pilot Wires (Optional)
- PVC Outer Sheath

AXQJ - AXCMK



- Aluminium Conductor (RM-RE-SE-SM)
- XLPE Insulation
- HF Inner Sheath
- Copper Concentric Screen
- Copper Binding Tape
- HFFR Outer Sheath



NA2XH



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- XLPE Insulation
- HF Filler
- Halogen Free Outer Sheath

NA2XRH



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- XLPE Insulation
- HF Inner Sheath
- Galvanized Round Steel Wire
- Halogen Free Outer Sheath

NA2XH FE 180 / E 90



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- MICA Tape
- XLPE Insulation
- HF Filler
- HF FE 180 / E90 Outer Sheath

NA2XY-FR



- Aluminium Conductor (RM-RE-SE-SM)
- XLPE Insulation
- Filler
- PVC-FR Outer Sheath



AVVG - SAVT - AYKY E-AYY - YAKY - (N)AYY



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- PVC Insulation
- Binding Tape or Filler
- Black PVC Outer Sheath
- SAVT Grey PVC Outer Sheath

AVVG - SAVT - AYKY E-AYY - YAKY - (N)AYY



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- PVC Insulation
- Binding Tape or Filler
- PVC Outer Sheath

AXMK - YAKXS - N1XV AXPK - XP 00-A



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- XLPE Insulation
- Binding Tape or Filler
- PVC Outer Sheath

N1XE - XAKXS - E-AY2Y



- Aluminium Conductor (RM-RE-SE-SM)
- N1XE XAKXS XLPE Insulation
- E-AY2Y PVC Insulation
- Binding Tape or Filler
- HDPE Outer Sheath



U-1000 AR2V - EAXVB



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- XLPE Insulation
- Filler
- PVC Outer Sheath

H1XDV-AS - LXAV



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- XLPE Insulation
- Inner Sheath
- Galvanized Double Steel Tape
- PVC Outer Sheath

SZAMKAM



Construction

- Aluminium Conductor (RM-RE-SE-SM)
- PVC Insulation
- Inner Sheath or Lapped Tape
- Aluminium Double Tape
- PVC Outer Sheath

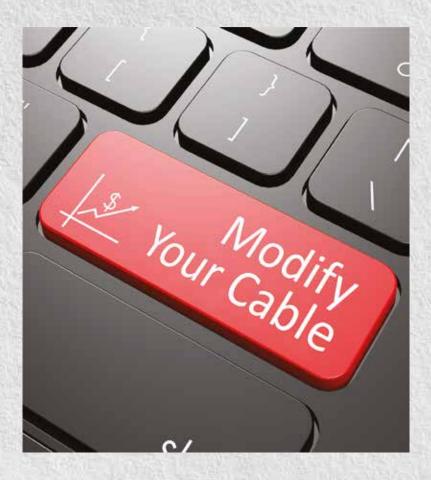
AYBY / LVAV / SAVBT



- Aluminium Conductor (RM-RE-SE-SM)
- PVC Insulation
- Inner Sheath
- Galvanized Double Steel Tape
- PVC Outer Sheath
- SAVBT Grey PVC Outer Sheath



ALUMINIUM FLEXIBLE CABLE



Application

This Aluminium Flexible Cable is designed for

- ▶ Photovoltaic / Solar Systems
- ▶ Wind Turbine Generators
- ▶ Heat and Power Plants
- ▶ Railway Vehicles
- ▶ Automobiles
- ▶ Transformer Stations
- ▶ Switching Stations / Control Panels
- ▶ Where Limitation in torsion angle, hard radius curves and cycles
- In Fixed and Flexing Installation

Remark

This Cable is a **"Custom Design Cable"**. Any demand can be tailored.

Characteristics to Build up Your Flexible Cable

- ▶ Rated Voltage Uo/U (Um)
- ▶ Annealing of Wires / Torons
- Stranding Direction of Torons
- ▶ Tape / Film Separator on Conductor
- ▶ Types of Insulation
- ▶ Oil and Grease Resistance
- ▶ U.V / Ozone Resistance
- ▶ Halogen / Smoke Content
- ▶ Flame / Fire Retardation
- ▶ Shielding & Screening
- Maximum Short Circuit Temperature
- ▶ Fixed / Flexing Operating Temperature Range
- ▶ Low Smoke Emission / Low Toxicity / Low Corrosivity
- ▶ Type of Sheath Material (Thermoset / Thermoplastic)
- Min. Bending Radius for Fixed / Flexing installation



Single Core Flexible Cable



Construction

- Finely Stranded Aluminium Conductor
- Annealing of Wires (Optional)
- Separator Film / Tape (Optional)
- Specially Formulated Insulation

Photovoltaic Cable



Construction

- Finely Stranded Aluminium Conductor
- Annealing of Wires (Optional)
- Separator Film / Tape (Optional)
- Specially Formulated Insulation
- Specially Formulated Sheath

Wind Turbine Cable



Construction

- Finely Stranded Aluminium Conductor
- Annealing of Wires (Optional)
- Separator Film / Tape (Optional)
- EPDM
- Inner Sheath
- Galvanized Steel Wire Shielding
- CSP Outer Sheath

Multi Core Cable



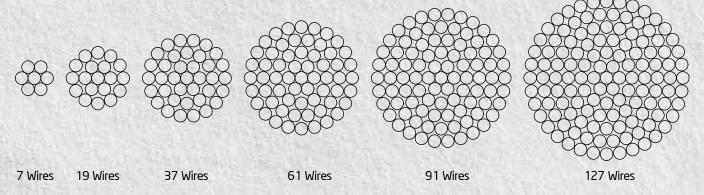
- Finely Stranded Aluminium Conductor
- Annealing of Wires (Optional)
- Separator Film / Tape (Optional)
- Specially Formulated Insulation
- Specially Formulated Sheath



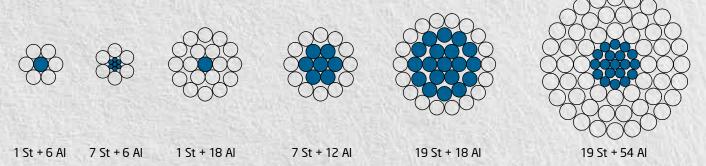
ALUMINIUM OVERHEAD CONDUCTORS







AACSR - ACSR Construction





AAC - A - AL



Construction

- Round, Stranded Aluminium Wires

AAAC - ALMELEC



Construction

- Round, Stranded AlMgSi Wires

AACSR



Construction

- Galvanized Steel Core
- Round, Stranded AlMgSi Wires

ACSR - AS - AC



- Galvanized Steel Core
- Round, Stranded Aluminium Wires



ALUMINIUM BUILDING CABLES

"Today, Aluminum building wiring is safe and reliable"

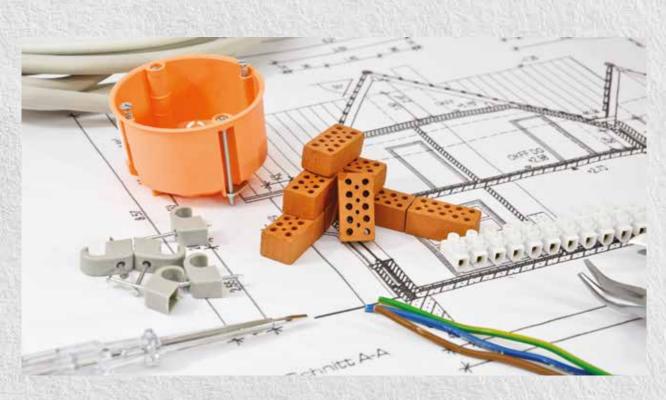
The fact is that aluminum is just as safe and just as reliable as copper, and it actually provides certain advantages over copper. Since 1970s, with the development of improved Conductors and connectors, changes have made installing aluminum building wire as simple as installing copper.

During Connection, Please Consider

- 1. Interoperability of Accessories and Aluminium
- 2. Workmanship Quality
- 3. Physical Properties of Accessories
- 4. Thermal Expansion Differences
- 5. Creep and Voltage Drop Conditions
- A Thin protective layer of Oxide layer on Aluminium is broken during termination process
- 7. Material Grade of Conductor
- 8. Proper tightening (torquing) is essential to achieve a reliable connection
- 9. All electrical connections should be periodically inspected
- 10. A compatible Oxide Inhibitor is recommended
- 11. Enviromental Conditions

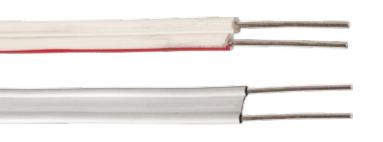
During Connection, Please Avoid from

- 1. Undesirable Accessories
- 2. Poor Workmanship
- 3. Imprudent termination
- 4. Improper tightening torque
- 5. Rapid conductor deformation due to creep
- 6. Excessive mechanical load and connector degradation
- 7. Do not re-torque the terminations as part of routine maintenance, if not loose
- 8. Over tightening can lead to damaged conductors and connection points





NAYIFY - APPV - CORDON



Construction

- Aluminium Wire
- PVC Insulation
- Color Strip

NAV



Construction

- Aluminium Conductor (RE-RM)
- HDPE or PVC Insulation

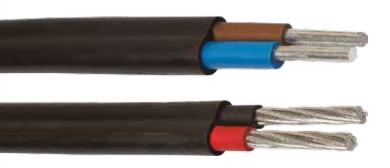
NAYM



Construction

- Aluminium Wire
- PVC Insulation
- Filler
- PVC Outer Sheath

NIAYY



- Aluminium Conductor (RE-RM)
- XLPE / HDPE / PVC Insulation
- PVC Outer Sheath



CUSTOM DESIGN CABLES

"You Desire, We Design"



Sahra Kablo, having an extensive range of manufacturing capability based on decades of experience, specializes in the design and production of custom design cables.

- Custom Design Cables can be tailored to your specific requirements
- · No two Customers' requirements are ever the same
- Custom Design Cables can be built to all manner of specifications
- We are applying our quality approach to cable manufacturing to produce a robust cable for the best possible cost
- We surely provide documentation of all the components including schematic drawings and data sheets provided to illustrate construction

Advantages of Aluminium Cables

- Lightweight
- Cost Saving
- Steady Quotation
- Efficient recycling
- Easy to install
- Easy maintenance
- Higher Flexibility
- No more problem in connection
- High corrosion resistance
- Youngest and most common metal in the earth surface





Saray Mah. Ahmet Tevfik İleri Cad. No:16 34768 Ümraniye / İstanbul - TURKEY

Phone: +90 216 634 10 23 (Pbx) / Fax: +90 216 634 10 30 info@sahrakablo.com / export@sahrakablo.com

Emekyemez Mah. Mürdüm Sk. No:1 34421 Karaköy / İstanbul - TURKEY
Phone: +90 212 235 26 72 / +90 212 235 21 85 / +90 212 238 67 25 / Fax: +90 212 237 63 23 sahra@sahrakablo.com / export@sahracable.com