

छैन कुनै सर्ट सर्किटको डर
जानकी केबुलको
साथ मात्र हुन्छ सुरक्षित घर



OUR BRANDS

Janaki Cable

Home Guard Wire and Cable

Rise Wire



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www.janakicable.com

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जानकी केबुल

बिजुलीको

बचत

घरको

सुरक्षा



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FLAME RETARDANT LOW SMOKE PVC INSULATED SINGLE CORE UNSHEATHED COPPER CABLES (UP TO 1100 VOLTS AC)

JANAKI
FRLS
FLAME RETARDANT LOW SMOKE

CONDUCTOR: The conductors, drawn from bright electrolytic grade copper and annealed and bunched together.

INSULATION: The bunched conductors are insulated with specially formulated Flame Retardant Low Smoke Compound. During a fire situation, the FR-LS compound restricts the spread of flame. The smoke emission is also minimal.

MARKING: The cables are printed with generic marking 'NS & Step Meter Coded'.

COLORS: Red, Yellow, Blue, Black and Green.

PACKING: 90 Meters (apprx.100 yards) pack in protective cartons.

Janaki's innovative offering Janaki FRLS is ideal for wiring solutions in multi-storied buildings, hotels, hospitals, commercial establishments and residential complexes. It is shielded by a specially formulated flame retardant PVC compound.

During fire, ordinary PVC emits black smoke and toxic fumes which are acidic in nature. This impairs visibility and hampers rescue operations. Janaki FRLS insulation retards spread of fire and emits minimum smoke and toxic gases. Thereby reducing the risk of injury. So, give yourself the promise of security and supreme quality. Get Janaki FRLS your home for life.

FLAME RETARDANT LOW SMOKE

Test	Specification	Specified Values
Critical Oxygen Index	ASTM-D 2863	Minimum 29%
Temperature Index	ASTM-D 2863	Minimum 250 °C
Acid Gas Generation	IEC 60754-1	Maximum 20%
Smoke Density Rating	ASTM-D 2843	Maximum 60%



SIZE DIMENSIONS AND RATINGS

Nominal Cross Sectional Area of Conductor	Number/Nominal Dia of wires*[Nom.]	Thickness of insulation [Nom.]	Overall Diameter Max.	Current Rating Casing	Concealed	D.C Resistance [Max.] at 20°C
Sq.mm	Number/mm	mm	mm	amps	amps	Ohm/km
0.50	7/0.30	0.60	2.20	5	4.50	-
0.75	11/0.30	0.60	2.80	7.50	7.00	26.0
1.00	14/0.30	0.60	3.00	12.00	11.00	19.50
1.50	22/0.30	0.60	3.40	16.00	4.00	13.30
2.50	36/0.30	0.70	4.10	22.00	19.00	7.980
4.00	56/0.30	0.80	4.80	29.00	26.00	4.950
6.00	84/0.30	0.80	5.30	37.00	31.00	3.30

*The number & diameter of conductor strands are for reference only and governed by conductor resistance.

*The above data is indicative only and may be revised without prior information. JANAKI will not be responsible for any damages arising out of incorrect application of its product.

COMMUNICATION CABLES

INTRODUCTION

Communications cable is essentially a cable used to transmit information by use of currents of various frequencies. In the basket of communication cables we offer; CCTV, Telephone Cables. These cables are typically used for data transmission, Ethernet connections, electronic circuits and networking.

FEATURES & BENEFITS

TELEPHONE (SWITCH BOARD CABLES)

Janaki Telephone cables are recommended for use in internal telephone wiring in high-rise buildings, offices, factories, hotels, residential complexes, etc. Janaki twisted pair cables are best suited for telephone cabling applications. The conductor is made of solid annealed, electrolytic grade high conductivity bare copper. The conductor is insulated with special grade high – density polyethylene with colour coding. The insulated cores are twisted with uniform lay to form pairs and are bunched together in such a manner so as to minimize cross talk. The cable is jacketed with a grey colour specially formulated Fire Retardant (FR) PVC with high oxygen and temperature index.



CONTROL CABLES



INTRODUCTION

Janaki Control cables encompass a large family of cables manufactured to various NS, BIS, BS, EN, VDE, and other international Standards. Our cables are designed for a wide range of application like industrial, signaling, transmission, measurement, control and regulation. These cables allow to transmit power at very low voltage to control the process or equipment.

APPLICATIONS

These control cables are mainly used in machinery, machine tools and appliances, measuring, control, heating and air conditioning technologies for permanent connections in cable chains, etc.

FEATURES

These cables have a copper conductor, which may or may not be enveloped in galvanized steel braid.

These cables can be manufactured as per any applicable standard.

These cables can be manufactured for Zero Halogen properties or high thermal stability PVC over sheathed.

They also offer various degrees of protection against electrical interference and resistance to caustic substances and oils.

WHY OUR CONTROL CABLES

Our halogen-free cables and wires are internationally certified and you can choose from our comprehensive range of standard products or can ask for cables /wires with special properties to meeting your requirement.



SUBMERSIBLE CABLES

INTRODUCTION

JANAKI Single & Multicore Flexible Copper Cable are used in low voltage signals, electrical motors, electrical appliances, control panels, DC power transformers, electrical boards, battery cables etc.

These cables are highly flexible in construction & designed with high Di-electric strength.

JANAKI Single & Multicore Flexible Copper Cable are having high degree of thermal stability, Oxygen & temperature index. These cables retard its spread in the unlikely event of fire felicitating rescue operation.

APPLICATIONS

These wires/cables are used for wiring in control panels, machines and various electrical installations in dry and damp interiors especially under typical industrial environmental conditions.

FEATURES

These wires are manufactured from bright-annealed 99.97% pure bare copper conductors and hence, offer low conductor resistance. The sheathing is provided with a specially formulated PVC compound to facilitate not only ease in stripping but also to withstand all kinds of mechanical abrasion while in use. PVC compounds used for insulation and sheathing have a high oxygen and temperature index & these properties help in restricting the spread of fire.



AUTO CABLES

INTRODUCTION

The automotive industry requires highly flexible cables yet rugged to handle the unique stresses during their assembly process as well as the vibrations of running vehicles. The automotive industry is constantly under pressure to optimize their operations in order to maximize efficiency to meet the technical and market demands & increasing expectations.

Janaki partners with automobile manufactures to develop solutions that enable them to maintain the efficient, high-performance operations besides being cost-effective. Manufactures all cabin and engine compartment wires, battery cable, ignition wire, Customized wires and complete harnesses for all automotive including Electric Vehicle (EV).

APPLICATIONS

Automotive wires and cables are used in wiring harness assemblies for all passenger performance and race cars, light, medium, heavy and industrial trucks, motorcycles, buses, agricultural equipment, recreational vehicles, construction equipment, rail equipment, and off-road vehicles.

FEATURES

Besides general purpose FLRYB PVC Insulated wires, Janaki offers these cables with High temperature resistant covering complete range of ISO 6722 type A,B,C,D & E and flame retardant and helps Providing higher reliability and heat resistance than conventional general wires. Janaki has 3 Electron Beam Irradiation facility to offer EBXL wires.





POWER CABLE

INTRODUCTION

A power cable is an electrical cable used to transmit electrical power from one point to another. It is an essential component in any electrical system, whether it's in homes, businesses, industries, or power distribution networks.

Here are the key aspects of a typical power cable description:

CONDUCTORS: The conductors are the core of the cable and are responsible for carrying the electric current. They are usually made of copper or aluminium, as these materials offer excellent electrical conductivity.

INSULATION: The conductors are surrounded by an insulating material, which provides electrical isolation and protection. Common insulation materials include PVC (Polyvinyl Chloride), XLPE (Cross-linked Polyethylene), or rubber. The choice of insulation depends on factors like voltage rating, temperature, and environmental conditions.

JACKET/SHEATH: To protect the cable from external factors such as moisture, abrasion, and chemicals, a jacket or sheath covers the insulation. The jacket can be made of various materials, like PVC, HDPE (High-Density Polyethylene), or LSZH (Low Smoke Zero Halogen) for applications where reduced smoke emissions are essential.

VOLTAGE RATING: Power cables are designed to handle specific voltage levels, ranging from low voltage (LV) to medium voltage (MV) and high voltage (HV) applications. The voltage rating is a crucial specification that determines the cable's performance and the electrical system it can be used in.

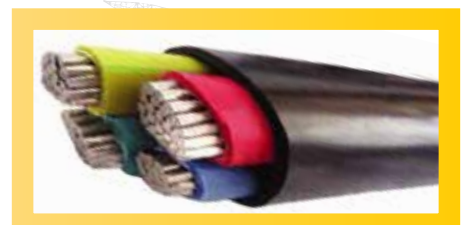
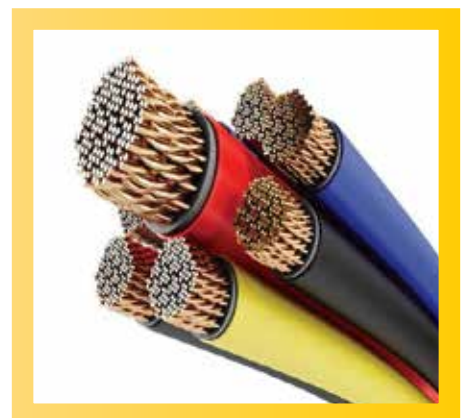
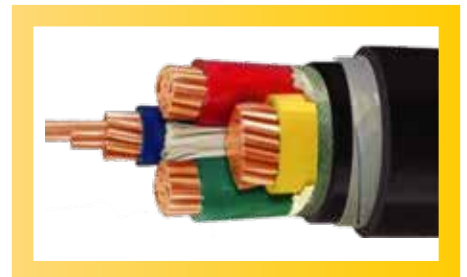
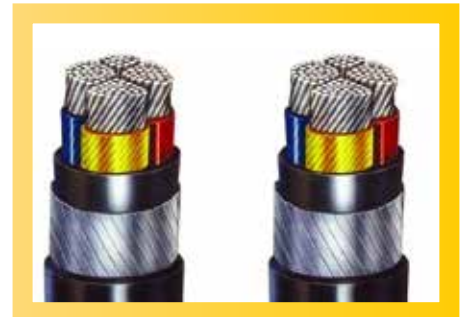
CURRENT CARRYING CAPACITY: The cable's current-carrying capacity, also known as ampacity, refers to the maximum current the cable can safely handle without overheating. This capacity is influenced by the conductor size, insulation material, and ambient temperature.

TYPES OF POWER CABLES: There are various types of power cables designed for specific applications, such as:

- A. **Single-Core Cables:** Suitable for high-voltage transmission and distribution lines.
- B. **Multi-Core Cables:** Used for indoor applications, power distribution, and wiring in buildings.
- C. **Armoured Cables:** Have an additional layer of protection, like steel or aluminium armour, for use in harsh environments or underground installations.
- D. **Non-Armoured Cables:** Suitable for general indoor and outdoor applications.

LOW SMOKE ZERO HALOGEN (LSZH) CABLES: Emit limited smoke and toxic fumes when exposed to fire, making them safer for enclosed spaces like buildings.

SIZE AND CROSS-SECTIONAL AREA: The size of a power cable is determined by its cross-sectional area, typically measured in square millimetres (mm²) or American Wire Gauge (AWG) for smaller wires.



AB CABLE



INTRODUCTION

AB Cable (Aerial Bundle Cable) is a type of overhead power cable designed for the distribution of electricity in rural and urban areas. It is commonly used by power utilities to deliver electrical power from the distribution lines to individual homes, businesses, and other structures.

KEY FEATURES:

DESIGN: AB Cable is constructed with multiple insulated conductors, typically made of aluminium or copper, twisted together and surrounded by a layer of weather-resistant insulation material, such as cross-linked polyethylene (XLPE). The cable is designed to be lightweight and easy to install, making it an ideal solution for overhead applications.

AERIAL INSTALLATION: Unlike traditional power lines, AB Cable is installed above ground level, often supported by poles, trees, or other structures. This aerial installation method eliminates the need for expensive underground trenching, reducing installation costs and minimizing disruptions during the setup process.

BUNDLED CONFIGURATION: The name "Aerial Bundle Cable" refers to the bundled configuration of the conductors within the cable. AB Cable typically consists of two or more-phase conductors and a neutral messenger wire. This bundling provides mechanical strength and makes the cable more aesthetically pleasing, as it reduces visual clutter along the distribution route.

INSULATION: The cable's insulation protects it from environmental factors such as moisture, UV radiation, and temperature fluctuations. This ensures reliable performance and extends the cable's service life, even in harsh weather conditions.

VERSATILITY: AB Cable is suitable for a wide range of applications, including residential, commercial, and industrial installations. It is commonly used for power distribution in areas with limited space or challenging terrain, where traditional power lines may not be feasible.

COST-EFFECTIVE: AB Cable is considered a cost-effective solution for power distribution due to its simplified installation process and reduced maintenance requirements. Its lightweight design also reduces transportation costs.

SAFETY: The use of bundled conductors and aerial installation minimizes the risk of contact between power lines and ground-level objects, reducing the likelihood of electrical hazards.



MULTICORE FLEXIBLE WIRE

FLEXIBLE CABLE

In different industrial applications, flexible cables and wires are much beneficial. The flexibility in wiring does not happen by magic. When you apply high-quality material obtained with a smart engineering process, the flexible wire is produced. Let us discuss some of the important features and benefits.

INCREASE SERVICE LIFE DUE TO HIGH LEVEL OF FLEXIBILITY

Service life is increased for a cable inside the cable carrier with a higher level of flexibility. A general cable may manage 50000 cycles, but a flex cable may complete between one and three million cycles.

CAN BE SELECTED FROM TWO OPTIONS

Flexible copper wire can be selected from two different options. They are conductors, which are stranded in layers and the cables that have bundled or braided conductors.

SPACE EFFICIENCY

The shape of the cables is such that they will fit closely with one another wherever it is required. Therefore, the cables may use the space, which remains unoccupied. The overall cost of laying down the cables will be saved, as there is no dead space available.

RELIABILITY

These cables are made for coping with specific requirements required for fulfillment and are completely trustworthy in terms of operations. The materials used are also maintaining the standards and performing any specific settings efficiently.

VERY LIGHT IN WEIGHT

The weight of the wire gets reduced when you are using the flex cables. These cables may use minimum materials for performing efficiently. The cross-section is decreased only to the required amount for making the size compact in nature.

FIRE AND HEAT RETARDANT

These wires are made fire and heat resistant with utmost care. In various electrical applications, the temperature may rise during the operation. Thus for sustaining the heat, they are made of fire retardant. Also, to prevent any mishaps; fire resistance is a much-required feature.

MULTIPLE AREAS TO USE

The cables are used both for residential and industrial purposes. Flexible multicore cable is ideal for installation in electrically operated machines such as refrigerators, air conditioners, motors, etc. These wires are much more flexible and provide the best protection throughout the year. Even under huge pressure, they do not start heating and continue to work efficiently.

STRENGTH AND FLEXIBILITY

Both the insulators and the conductors share the tensile load equally and the flexible electrical wire has great strength. As the name suggests flexible wires and cables, it has to be very flexible in nature. It helps them to be applied in various applications according to the requirements.



MULTISTRAND / DOMESTIC WIRE

INTRODUCTION

Imagine a commercial property without any indoor applications – that is how they would have been without stranded wires. A stranded wire is one that is made of multiple thin strands – often made of copper. They are then twisted and bundled together within a PVC cable, thereby creating a multi-strand conductor. Versatile in nature, they are available in different types. Learn more about them below.

STRANDED WIRE TYPES

While the basic principle of a stranded wire remains constant, they are available in several designs.

BUNCH STRAND

In this type of wire, the thin strands are bunched together in one direction; however, they have no particular geometric arrangement. They are twisted and bunched tightly to ensure optimal flexibility, durability and resistance. It is noteworthy that the individual wires do not have a fixed position inside the strand.

ROPE STRAND

When several wires are grouped together into several bundles, they are typically called rope strands. Each wire bundle is then arranged in concentric circles to create a cable. They are known to be highly durable and flexible (Class – 5 Type), thereby making them versatile for different applications that require consistent movement.

COMPACT CONDUCTOR

A compact stranding (Class – 2 Type) conductor is one in which each layer is stranded in the same direction and then rolled into its ideal shape. Once this is done, they are compressed to remove air spaces between each strand. This makes it smooth and compact, thereby resulting in a narrower than usual diameter.

As you have read, stranded wire types vary – each has its own unique property and benefit. This is why it is essential to choose the right stranded wire based on your requirement.

HOW TO CHOOSE THE RIGHT STRANDED WIRE FOR YOU?

Choosing the right stranded wire is essential to the success of your project or smooth functioning of your product.

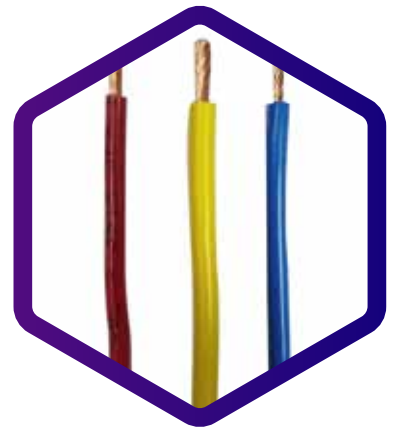
DETERMINE THE WIRE GAUGE AND LENGTH

Identify the wire flexibility you need – solid core, coarsely stranded, or finely stranded

Gauge the best type of insulation you need

Choose wire colours wisely so your team or the end consumer knows which wire is used for what

Select a copper or aluminium stranded wire



ACSR CONDUCTOR

ACSR Conductors, which stands for Aluminium Conductor Steel Reinforced, are widely used in electrical power transmission and distribution systems. These conductors are designed with a central core of high-strength steel wires surrounded by multiple layers of aluminium strands. The steel core provides excellent mechanical support and enhances the conductor's overall strength, allowing it to withstand the mechanical stresses and tensions experienced during installation and operation. The outer layers of aluminium strands offer high electrical conductivity, making ACSR Conductors efficient for transmitting electricity over long distances. This combination of aluminium's conductivity and steel's strength results in a conductor that is lightweight, durable, and capable of carrying heavy electrical loads with minimal power losses. ACSR Conductors are commonly used in overhead power lines, providing a reliable and cost-effective solution for transmitting electricity from power plants to distribution substations and further to homes, businesses, and industries. Their widespread use and proven performance make them a crucial element in ensuring a stable and efficient electrical power supply to meet the demands of modern society.



CONCENTRIC / HOOK UP WIRE

INTRODUCTION

Hook-Up Wire is a wire with a single insulated conductor that may be used for low-voltage, low-current applications. Hook-Up wire works well in enclosed spaces and comes in a wide variety of constructions with various conductors, insulations, and jacket materials available. Most hook-up wire is rated at 600V, but temperature ratings vary depending on construction.



WHAT APPLICATIONS USE HOOK-UP WIRE?

Hook-Up Wire is frequently used in control panels, automotive, meters, ovens, internal wiring of computers, electronic equipment, business machines, and appliances. Hook-up wire is most often used within enclosed electronic equipment, and certain types may even be used in challenging military applications.



WHAT STYLES OF HOOK-UP WIRE CAN I PURCHASE FROM ALLIED WIRE AND CABLE?

We stock a variety of UL rated PVC Hook-Up Wire, including UL 1007/1569, UL 1015, and UL 1061. Allied Wire and Cable carry Hook-Up product lines of Irradiated Lead Wire, Mil-Spec Lead Wire, and PTFE Lead Wire. Most of our lead wire is UL/CSA Recognized or meets military specifications. Your sales representative will best be able to identify the type of lead wire you require based on your product specifications.



WHAT TYPES OF INSULATION MATERIALS ARE AVAILABLE FOR HOOK-UP WIRE?

- * PVC
- * PTFE
- * EPDM (ethylene-propylene-diene elastomer)
- * Hypalon
- * Neoprene
- * Silicone Rubber



YG /EARTHING CABLE

INTRODUCTION

Y/G cable refers to a type of electrical cable used for grounding purposes. The "Y" and "G" likely stand for "Yellow" and "Green," respectively, which are common colors used to indicate ground conductors in electrical wiring. It is coated with PVC yellow colour with green single/ double lining and it is also known as Earthing cable because it is mainly used for earthing purpose. The composition of YG Cable is as 90% Yellow and 10% Green.

In electrical systems, the ground wire (often green or bare) is used to provide a safe path for electrical currents to dissipate into the earth in the event of a fault or short circuit. This helps protect people and equipment from electric shock and reduces the risk of fires.

If you're working with electrical wiring and need to use ground wires, it's important to follow local electrical codes and safety guidelines to ensure proper installation and minimize the risk of electrical hazards.

CONDUCTORS

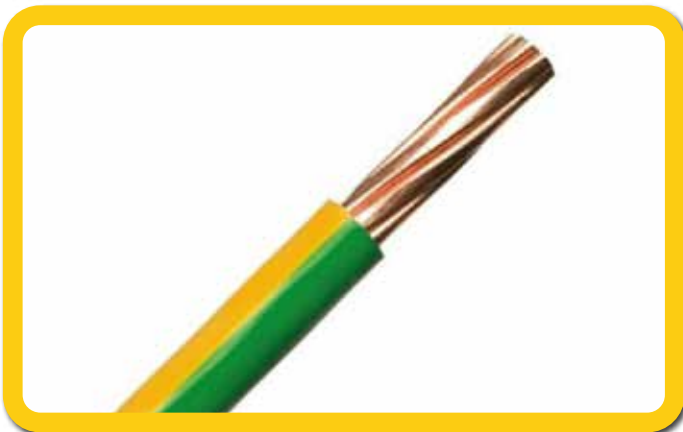
- Plain annealed copper conductor, high conductivity
- 0.50mm² to 150mm² flexible copper complying with BS6360 Class 5.

INSULATION

- PVC insulation complying with BS7655 requirements for type T13, Suitable for operation – 15°C to 105°C Core Identification
- RED, BLACK, BLUE, YELLOW, YELLOW/GREEN Colour or other colours available on request.

HARMONIZED CODE DESIGNATION

- Upto 1.00mm² flexible wire H05V2-K
- From 1.5mm² to 300mm² flexible wire H07V-K



STAY WIRE

INTRODUCTION

Stay Wires are galvanized steel wire strands that are used for sustaining mechanical load. Generally they are made up of 6 wires stranded around 1 wire, twisting 7 wires together. A common use for stay wires is in the electricity industry, using the wire to stay power poles and tower structures. Stay wire is made in compliance with BS 183 or other customer specified specifications.

MATERIAL:

The wire is cold drawn from steel and coated with zinc, the finish strand and the individual wires having uniform quality and have the properties and product characteristics as specified in technical specification.

CONSTRUCTION:

7 Strand (6+1)

SPECIFICATION:

BS:183

Size: 7/1.60 to 7.40mm

MARKING:

As specified by the purchaser which is legibly stamped/written on a suitable tag security attached when galvanized stay strands are supplied in coil. In case of galvanized stay strands are supplied in reels, the informations are written on both side of the reels and suitably tag giving the same information be attached on the side of the reel.

PACKING:

The galvanized steel stay strand protected with paper/polythene/HDPE and outside wooden laggin on drum/reel.



XLPE COVER CONDUCTOR

INTRODUCTION

Covered conductors consist of a conductor insulated by a covering made of insulating material(s) as protection against accidental contacts with other covered conductors and with grounded parts such as tree branches etc. In comparison with insulated conductors, this covering has reduced thickness, but is sufficient to withstand the phase-to-earth voltage temporarily.

APPLICATION:

It is widely used at the transformer circuit which rated voltage is 6000V or under.

SPECIFICATION:

The product is produced against IEC60502 and IEC60331, And the product can be produced against the standard of BS, DIN, and the standard required by the clients.

FEATURES:

1. The long-term permissible operation temperature of the conductor shall not be higher than 70°C.
2. The max temperature of the conductor of cable should less than 160 °C when short circuit.
(less then 5 second).
3. The cable is not limited by drop in level when being laid, and the environment temperature shall not be lower than 0°C.
4. Perfect chemical stability, resistant against acids, alkalis, grease and organic solvents, and flame resistant
5. Light weight, perfect bending properties, installed and maintained easily and conveniently.
6. Rated voltage: 0.6/1kV, 3.6/6kV.
7. Number of cores: One, two, three, four, five.
8. Cable laying, bend radius ≥ 10 times cable O. D.

Package: In coils, wooden drums, steel drums or steel-wooden drums.

We could producing according to the customers' requirements.

