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 **SAMA**

SAMA WIRE AND CABLE



450/750V PVC insulated wires (solid)

These wires are used for general usages as in dry rooms, electrical equipment, keys and panelboards, and also inside the pipes under plaster, which are molded by insulating clamps; up to 750-v voltages are also used. Using these types of wire is not allowed directly below the plaster.



450/750V PVC insulated wires (Stranded annealed copper)

There is another type of wire called insulated or Stranded annealed copper; Stranded plain annealed copper wire (cable) is not actually single-stranded and is composed of twisted rods. Therefore, this group of wires can be categorized as the insulated wires (Flexible) and the rod. The minimum diameter of twisted rods in Stranded plain annealed copper cable (wire) starts from 1.04 for size 6 and varies up to 2.85 for size 400. (This item is between 0.25- and 0.5-mm square in insulated wire or cable).



450/750V PVC insulated wires (Flexible)

Whenever the diameter of one of inner strands of the cable is between 0.25 to 0.5 mm, and it is also made of the sum of these conductors besides the desired segments, we can call this conductor an insulated one. For example, by placing 30 conductors with a diameter of 0.25 mm next to each other (with a layer of covering around them – insulation), an insulated wire (flexible) with a nominal cross-sectional area of 1.5 mm square will be made. As it has been mentioned before, this also applies to insulated cable, for example, by placing 765 conductors with a diameter of 0.5 mm square next to each other (with two layers of cover – insulation – jacket), an insulated cable with a nominal cross-sectional area of 150 mm square will be made.



300/500V PVC insulated and sheathed flexible cables / 0.6/1kV PVC insulated and sheathed flexible cables

This type of cable can be used as input and connection cables in electrical appliances, home appliances and machines whose plugs are permanently attached to the cable.



Sama Insulated and sheathed power cables

One of the most common types of power cables is high tension power cable or so-called high voltage cable, which is mostly used in panelboards, power plants, home electricity meters and even street lights, etc. As their name indicates, high voltage cables are used to transmit power at high voltages and are highly efficient. Sama high voltage cables are made of copper or aluminum and have XLPE insulation that can sustain voltages above 36,000 watts. This insulation has a much higher thermal resistance than PVC insulation. Moreover, these cables are placed underground to prevent any damage or danger. High voltage cables are also used in open spaces, indoors and in water.



Insulated and sheathed power cables (single core)

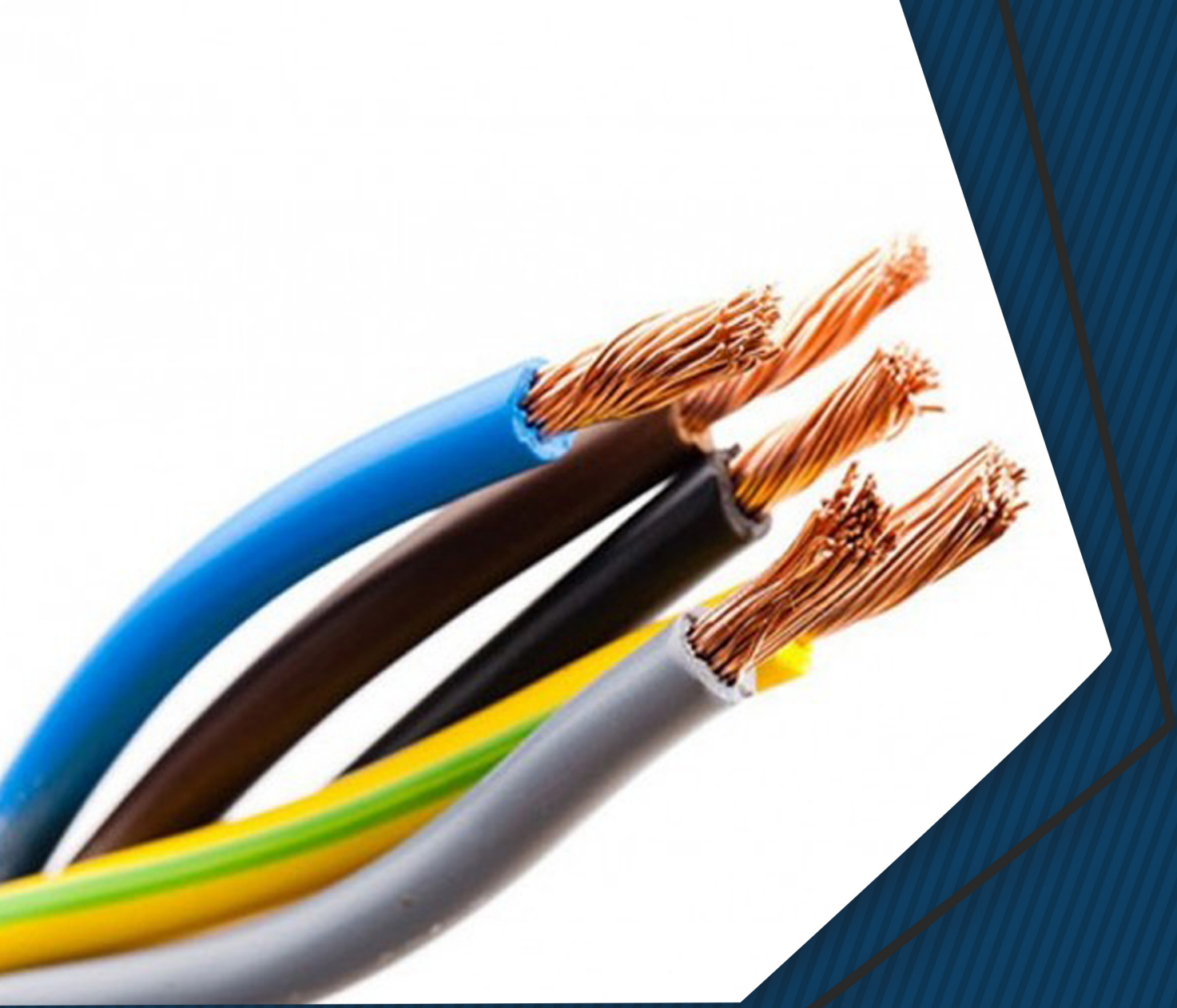
This type of product is mostly used for ground cabling inside or outside the canal to power electrical installations with the possibility of mechanical impact. These types of cables contain the following specifications:

- . 0.6/1kV PVC insulated and sheathed power cables
- . 0.6/1kV Aluminum conductor, PVC insulated and sheathed power cables (Single core)
- . 0.6/1kV PVC insulated, concentric neutral type, PVC sheath cable (single core)
- . 0.6/1kV PVC insulated, aluminum armored, PVC sheathed cables (single core)



Insulated and sheathed power cables (multi-core)

These types of cables are used to supply outdoors electricity, underground, indoors, in the water, in the buildings, cabling ducts, power plants, industrial applications, distribution centers as well as consumption networks and where there is no possibility of mechanical damage to the cable.



Different types of insulated and sheathed power multi-core cables (round type):

- . 0.6/1kV PVC insulated and sheathed power multi-core cables (round type)
- . 0.6/1kV Aluminum conductor, PVC insulated and sheathed power multi-core cables (round type)
- . 0.6/1kV PVC insulated, concentric copper conductor, PVC sheathed, power multi-core cables (round type)
- . 0.6/1kV PVC insulated, concentric copper conductor, PVC sheathed, power multi-core cables (round type)
- . 0.6/1kV PVC insulated, steel armored, PVC sheathed power multi-core cables (round type)
- . 0.6/1kV PVC insulated, steel armored, PVC sheathed power multi-core cables (round type)



Sama insulated and sheathed power cables (sector type)

Multi-core power cables with sector conductors are a group of power cables which are used to supply outdoor electricity, underground, indoors, in the water, in the buildings, cabling ducts, power plants, industrial applications, distribution centers as well as consumption networks and where there is no possibility of mechanical damage to the cable.



Different types of insulated and sheathed power cables (sector type):

- . 0.6/1kV PVC insulated and sheathed power cables (sector type)
- . 0.6/1kV PVC insulated and sheathed power cables (sector type)
- . 0.6/1kV PVC insulated, concentric copper conductor, PVC sheathed power cables (sector type)
- . A strip measuring 0.1 x 10 mm is placed on the copper wires. 0.6/1kV PVC sheathed power cables (sector type)



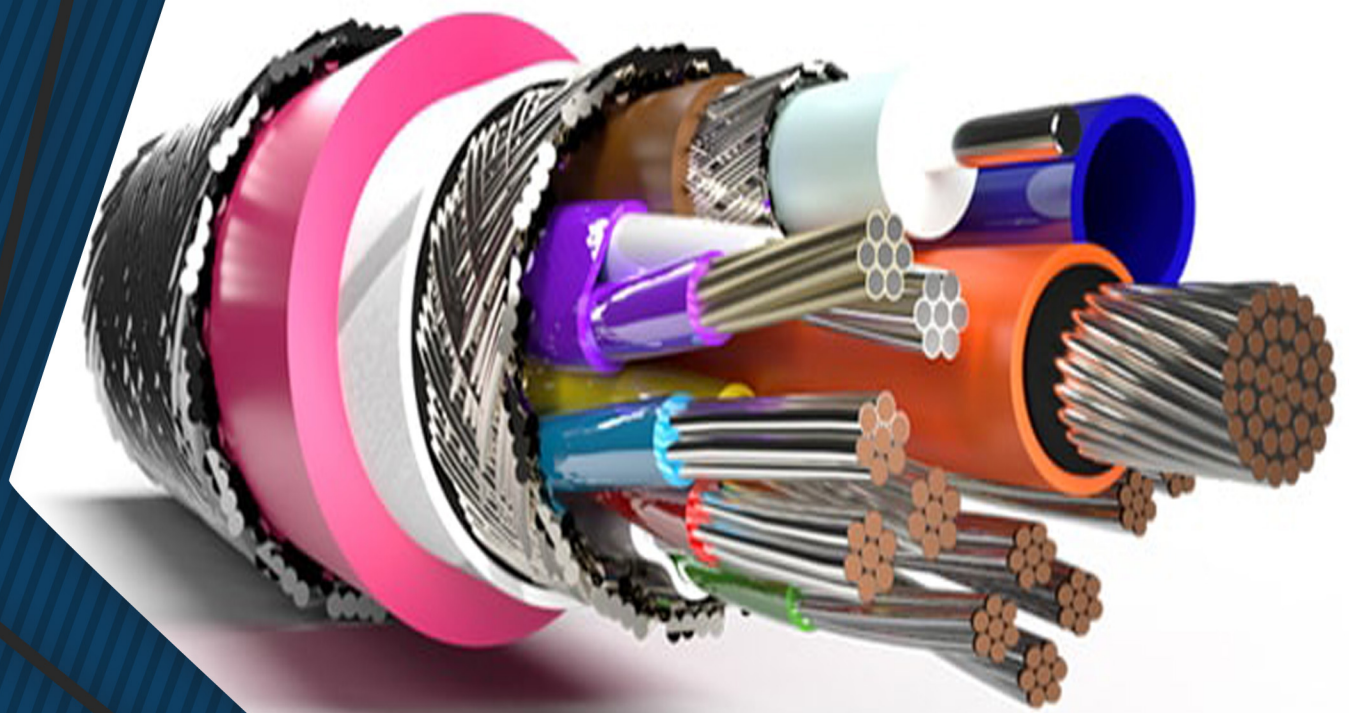
Sama insulated and sheathed, control cables

It is a type of multi-stranded cable with each strand responsible for transmitting controls, protecting or measuring signals in control circuits making it possible to send commands to control equipment in industrial environments. It is also being used to connect the components of the devices in the production lines. Furthermore, they are also being used as one of steering cable which transmits analog signals (such as currents flowing through equipment) and digital signals (such as control commands in the electrical panel) and opens and closes switches.



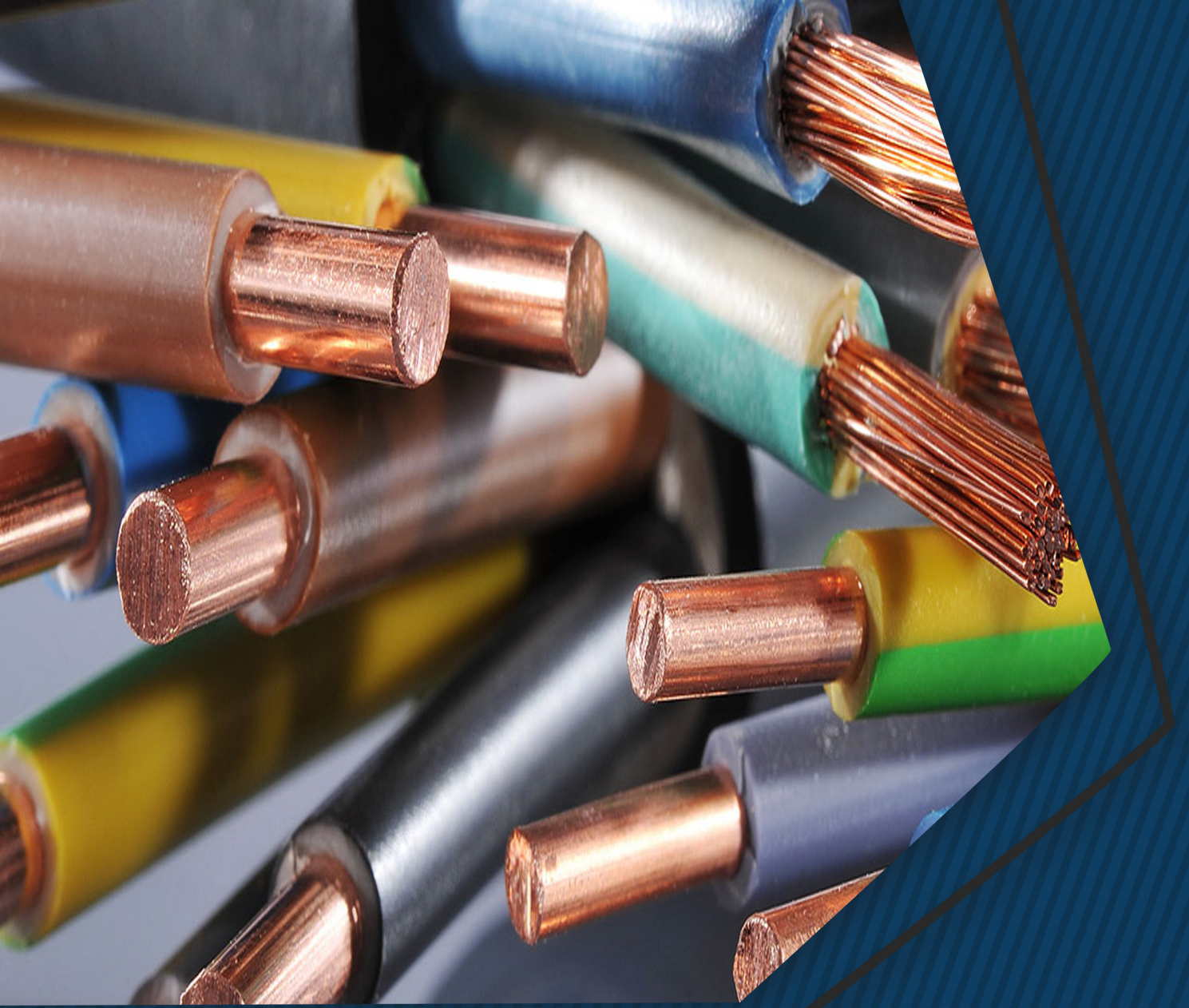
Different types of Sama insulated and sheathed, control cables:

- . 0.6/1kV PVC insulated and sheathed, control cables
- . 0.6/1kV PVC insulated and sheathed, control cables
- . 0.6/1kV PVC insulated, concentric copper conductor, PVC sheathed, control cables
- . 0.6/1kV PVC insulated, steel armored, PVC sheathed, control cables



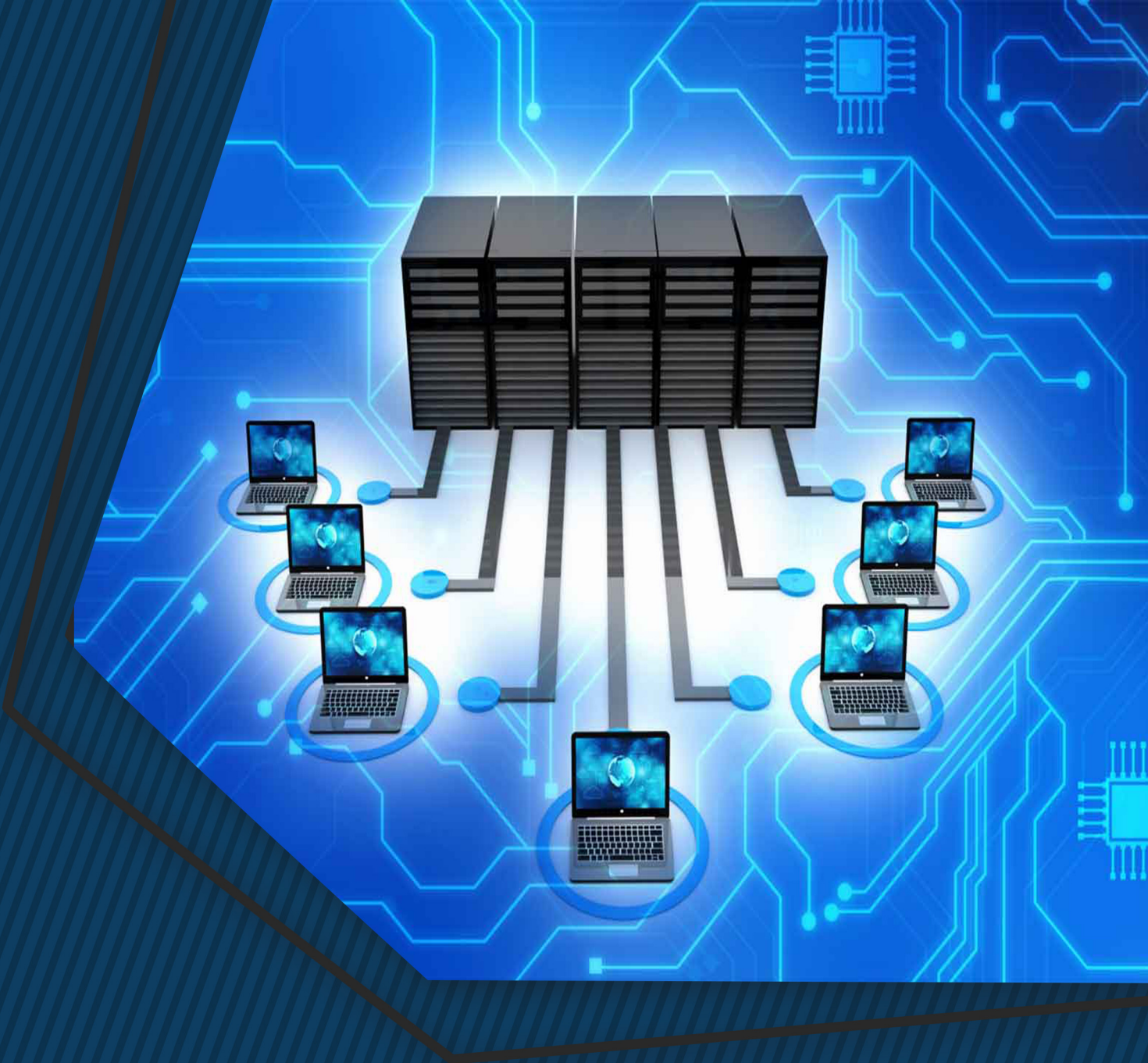
Sama low smoke halogen free power cables

These cables are being used for energy-sensitive locations such as hospitals, hotels, tunnels, subways, stadiums, or any densely populated area. Some of these materials are just low-smoke and in terms of other parameters are not much different compared to conventional insulation such as PVC; But other groups, in addition to being smoke-free and halogen-free, have heat, acid or hydrocarbon properties. This will be the main reason for the different range of price in low-smoke cable; as they are usually the same in conductors.



The following types of Sama low-smoke power cables include:

- . 0.6/1kV low smoke halogen free power cables (single core)
- . 0.6/1kV low smoke halogen free power cables (single core)
- . 0.6/1kV low smoke halogen free power multi-core cables (round type)
- . 0.6/1kV low smoke halogen free power multi-core cables (sector)
- . 0.6/1kV low smoke halogen free control cables
- . 0.6/1kV low smoke halogen free armored power cables (single core)
- . 0.6/1kV low smoke halogen free armored power multi-core cables
- . 0.6/1kV XLPE insulated, steel armored, low smoke halogen free power cables (sector type)

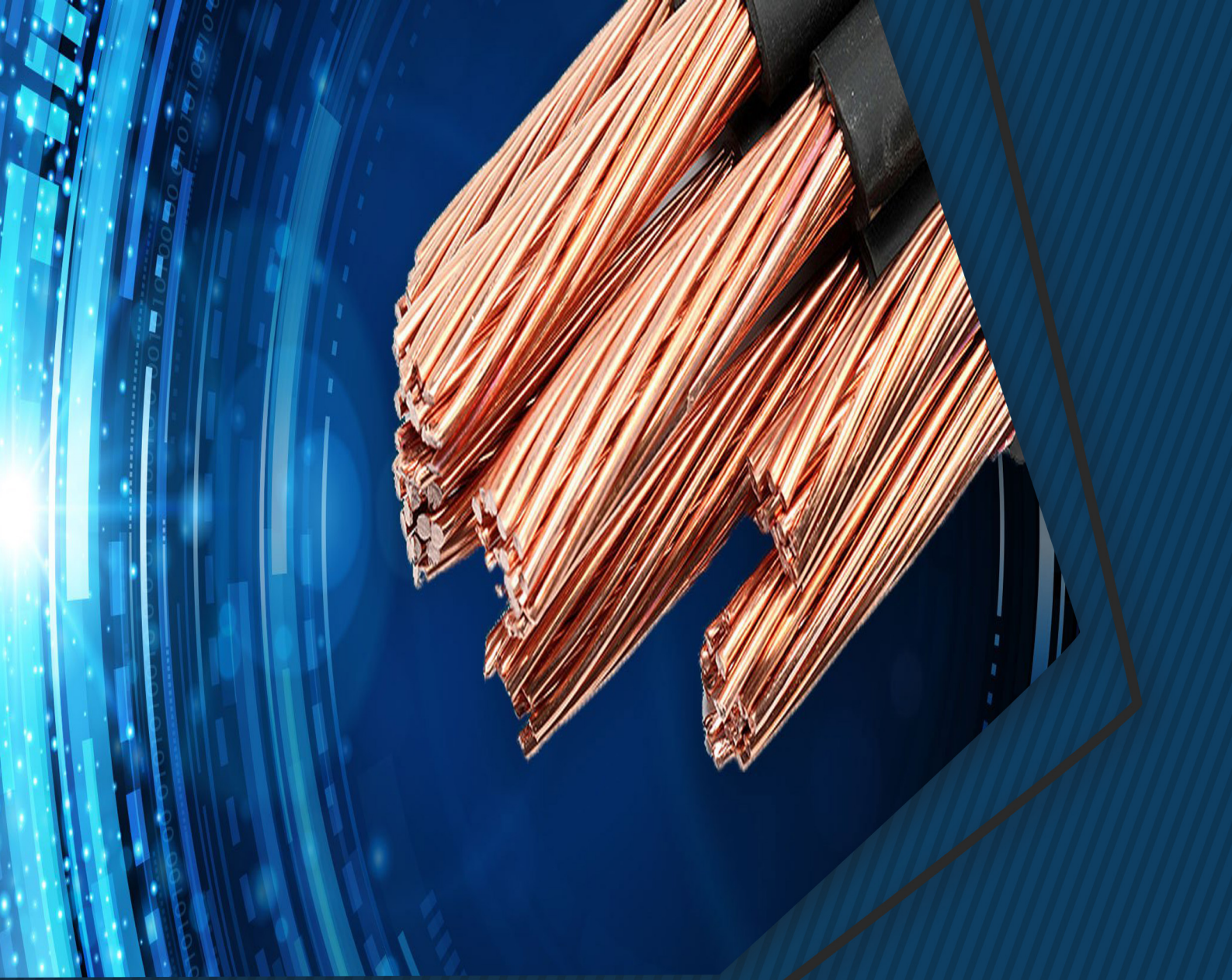


Sama Overhead covered conductors (cc)

Overhead cables are mainly made of aluminum and are structurally divided into two categories: overhead conductors with uncover conductors and overhead conductors with covered conductors.

advantages of overhead conductors:

- . Easy accessibility of network construction
- . Easier troubleshooting
- . Low-cost troubleshooting and no need for experts
- . Branching in a lower time & costs



Different types of Sama overhead conductors:

- . Overhead covered conductors (cc) 20kV
- . Hard aerial copper wire
- . All aluminum conductors (AAC)
- . Aluminum conductors steel reinforced (ACSR)



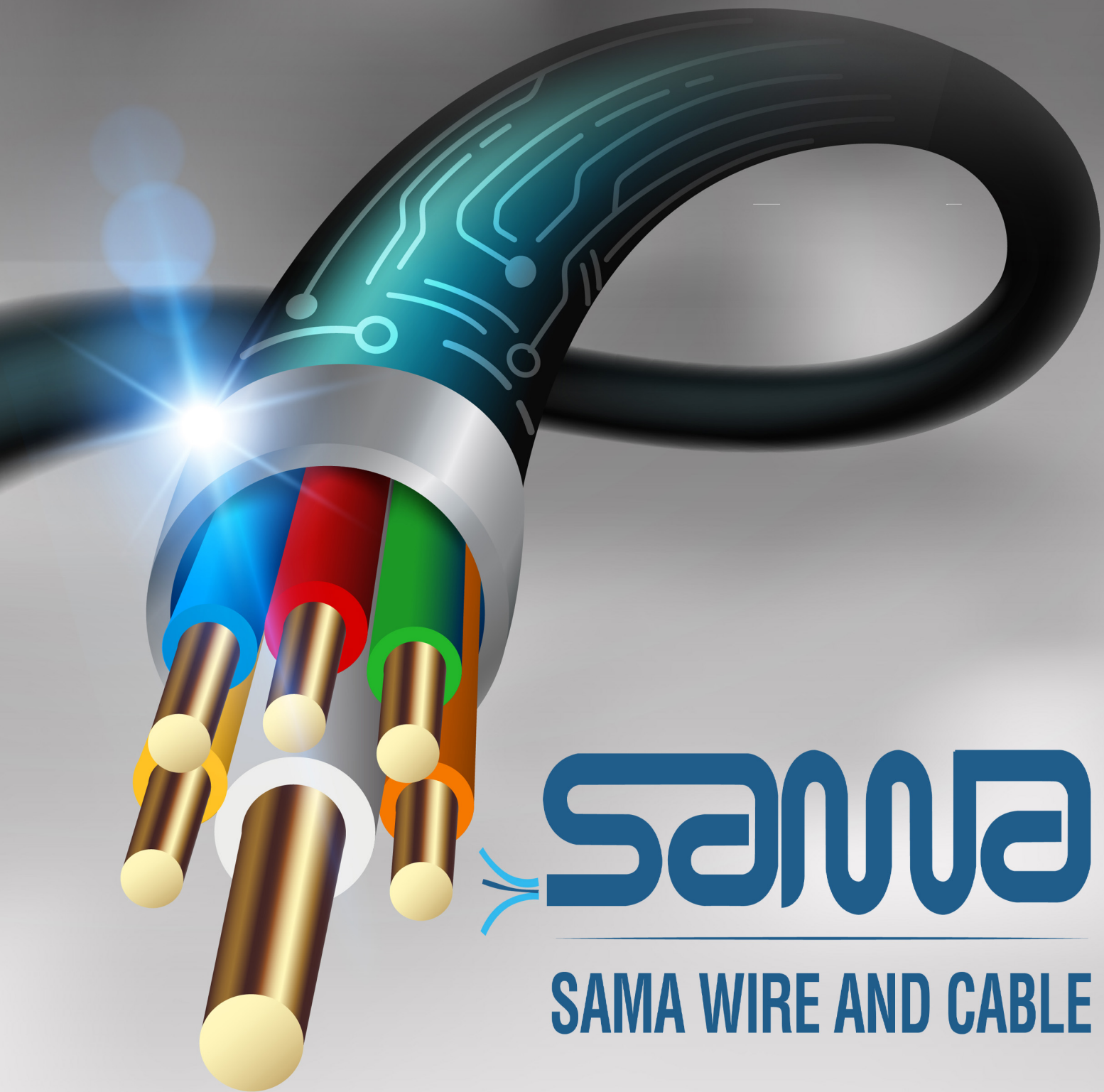
Sama Aluminum redraw rod

This product is used as a raw material for the production of aluminum wires and cables. The production stages of aluminum rod include smelting operations, storage of molten materials, constant casting by a special machine and rolling stage by rod milling machine as well. Consequently, the rod is packed in coils.



Packaging

Sama Trading Company packages all its wires in a loop in an area of 100 meters. The company puts a large number of these loops inside a large cardboard box, depending on the type of wire, in order to ensure damage along with ease of transportation. The company also packages its high voltage cables on large wooden and plastic spools of 500 and 1000 meters and sends them to its customers all over the world.



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