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LOW TENSION AERIAL BUNCHED CABLE

Safe, Reliable, and Efficient
Power Distribution

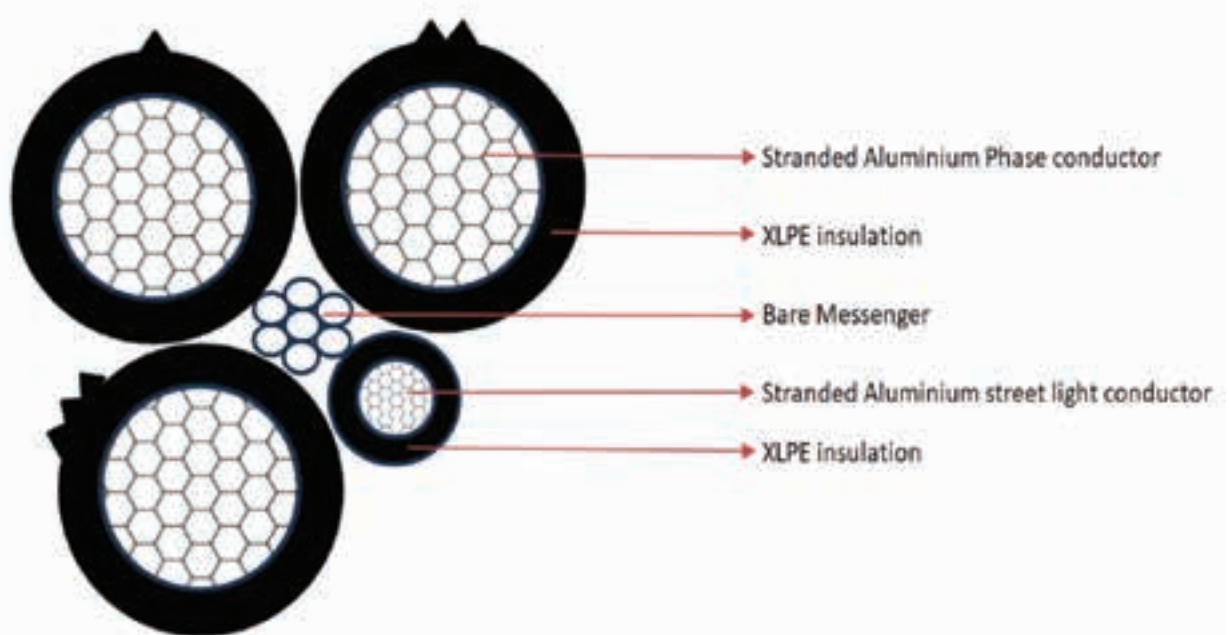


Since 1958

POWERING INNOVATION

Fort Gloster Industries Limited
From the house of Bangurs





What are LT Aerial Bunched Cables?

LT Aerial Bunched Cables are a modern solution for power distribution in low-voltage applications. They combine multiple insulated conductors into a compact and safe unit, which is installed overhead. They are widely used for power supply in urban, rural, and industrial areas.

Why Choose LT Aerial Bunched Cables?

These cables are designed to provide a reliable, cost-effective, and safe power distribution system, especially in areas where underground cables are not feasible. They are an ideal alternative to conventional bare conductors in aerial applications.

Key Features



Compact and Efficient

The cables are designed to be compact, which reduces the amount of space needed for installation. This makes them suitable for areas with limited space or congested urban areas.



Safety

The insulation protects against electrical shocks, short circuits, and environmental factors like moisture and dust, providing added safety compared to traditional overhead lines.



Durability

The cables are made with high-quality materials that ensure long-lasting performance under harsh weather conditions.



High Insulation Resistance

They offer high insulation resistance to minimize the risk of leakage currents and ensure a reliable and safe power supply.



Environmentally Friendly

These cables are designed to reduce the environmental impact by reducing overhead line hazards, as they are resistant to vandalism and accidental damage.



Cost-Effective

Lower installation and maintenance costs compared to traditional underground cables. They are also easy to repair and maintain, which lowers the overall operational costs.



Specifications

Standard Compliance

These cables conform to IS 14255 for safety, quality, and environmental compliance.

Voltage Rating

Typically upto 1.1 KV (Low Tension)

Conductor Material for Phase / Neutral conductor

The phase conductor is of H2/H4 grade aluminium complying with the requirements of IS 8130 with latest amendments and conforms to flexibility class 2 of IS 8130. The phase conductor can be single phase or Three phase depending on the single phase /Three phase system.

Insulation Material

The conductors are insulated with a variety of materials like XLPE (Cross-Linked Polyethylene) for superior insulation by extrusion process. It is so applied that it fits closely on the conductor and is possible to remove without damaging the conductor. The colour of insulation is black for aerial bunched cable with UV resistant properties.

Nominal Size Range for Phase conductor

16mm², 25mm², 35mm², 50mm², 70mm², 95mm² etc.

Messenger conductor

The messenger conductor will be of

aluminium alloy as per IS 398 Part 4 can be Bare as well as Insulated (As per customer requirements). The mentioned electrical parameter is for bare messenger conductor.

Street Light conductor

The street light conductor if required will be 16 sq.mm aluminum conductor as per IS 8130 and will be XLPE insulated.

Assembly (Laying Up)

The required number of insulated phase conductors, one insulated neutral conductor (if required) and a street lighting conductor (if required) is twisted around the bare (or insulated) as required messenger conductor without fillers with a lay not exceeding 35 times the diameter of the insulated phase conductor. The direction of lay is right hand.

Temperature Range

Suitable for operating in temperatures between -20°C and 90°C.

Core Identifications

The phase conductors are provided with one, two or three 'ridges' and outer neutral insulated conductor, if provided, has four 'ridges' for quick identification. The street lighting conductor and messenger conductor (if insulated) does not have any identification mark.

Applications

Residential Areas

Ideal for providing electricity to homes, particularly in urban areas with limited space.



Rural Electrification

They are a preferred solution for rural electrification where underground cables may be too costly or difficult to install.

Industrial Use

Used to supply power to industrial plants, commercial buildings, and factories.



Agriculture

Often used for power distribution to irrigation systems or farms in remote locations.



Advantages

Compact & Space-Efficient

Aerial bunched cables take up less space compared to traditional overhead lines, making them ideal for congested areas.

Safety Features

The insulated conductors significantly reduce the risk of electrical accidents like short circuits and fires, making them safer than conventional open wire systems.

Resistance to Environmental Factors

These cables can withstand varying weather conditions,

making them highly reliable in areas with harsh climates.

Reduced Power Loss

Their construction minimizes power losses due to resistance, resulting in more efficient power distribution.

Minimal Maintenance

Due to the nature of their insulation and design, LT aerial bunched cables require less frequent maintenance and repairs compared to other types of power cables.

Installation

Simple and Quick Installation

These cables are easier and quicker to install compared to traditional cables because they don't require digging or underground trenching.

Installation Tips

Ensure the correct tension is maintained during installation to prevent damage. Use appropriate cable supports and fixtures to maintain the integrity of the cable.

Maintenance

Inspection and Monitoring

Regular inspection and monitoring for any visible wear or damage can help in prolonging the life of the cables.

Repairing

In case of any damage, repairs can be done quickly and efficiently by replacing only the damaged section.

Physical and Electrical Parameters

Cable Size* (P + M + S) (Sq.mm)	Nominal Thickness of XLPE insulation (mm)		Minimum Breaking load of messenger (KN)	Max DC resistance at 20°C (Ohm/Km)		Current Rating in air at 40 deg C (Amps)
	Phase conductor	Street Light		Phase conductor	Messenger Conductor	
1C x 16 + 25 + 16	1.2	1.2	7	1.91	1.38	84
1C x 16 + 25	1.2	-	7	1.91	1.38	84
3C x 16 + 25 + 16	1.2	1.2	7	1.91	1.38	72
3C x 16 + 25	1.2	-	7	1.91	1.38	72
1C x 25 + 25 + 16	1.2	1.2	7	1.2	1.38	112
1C x 25 + 25	1.2	-	7	1.2	1.38	112
3C x 25 + 25 + 16	1.2	1.2	7	1.2	1.38	98
3C x 25 + 25	1.2	-	7	1.2	1.38	98
1C x 35 + 25 + 16	1.2	1.2	7	0.868	1.38	137
1C x 35 + 25	1.2	-	7	0.868	1.38	137
3C x 35 + 25 + 16	1.2	1.2	7	0.868	1.38	119
3C x 35 + 25	1.2	-	7	0.868	1.38	119
1C x 50 + 35 + 16	1.5	1.2	9.8	0.641	0.986	165
1C x 50 + 35	1.5	-	9.8	0.641	0.986	165
3C x 50 + 35 + 16	1.5	1.2	9.8	0.641	0.986	145
3C x 50 + 35	1.5	-	9.8	0.641	0.986	145
1C x 70 + 50 + 16	1.5	1.2	14	0.443	0.689	209
1C x 70 + 50	1.5	-	14	0.443	0.689	209
3C x 70 + 50 + 16	1.5	1.2	14	0.443	0.689	185
3C x 70 + 50	1.5	-	14	0.443	0.689	185
1C x 95 + 70 + 16	1.5	1.2	19.7	0.32	0.492	264
1C x 95 + 70	1.5	-	19.7	0.32	0.492	264
3C x 95 + 70 + 16	1.5	1.2	19.7	0.32	0.492	235
3C x 95 + 70	1.5	-	19.7	0.32	0.492	235

* The above sizes are indicative only. Higher sizes or other customized sizes can be supplied as per customer requirements.

Fort Gloster Industries Limited

From the house of Bangurs - Since 1958

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