

ETHERNET LAN



F/UTP Cat.6A 4PR 23AWG LSZH, Conductor Material: Copper, Outersheath Color: Green 6018





Description

LAN Copper Cables, also known as Ethernet cables or twisted pair cables, are a fundamental component of local area networks (LANs). They provide the physical medium for transmitting data signals between devices within a network infrastructure and they can be:

- Unshielded Twisted Pair (UTP): UTP cables are the most common type of LAN cables. They consist of pairs of insulated copper wires twisted together, providing reliable data transmission for short to medium distances.
- Shielded Twisted Pair (STP): STP cables feature an additional metallic shield around the twisted pairs, providing better protection against electromagnetic interference (EMI) and crosstalk. They are ideal for environments with high levels of interference.
- Foiled Twisted Pair (FTP): FTP cables have an overall foil shield that encases all twisted pairs, offering effective EMI protection.

LAN Copper Cables are categorized based on their performance specifications, as defined by the Electronic Industries Association/Telecommunications Industry Association (EIA/TIA):

- Category 5e (Cat5e): Suitable for speeds up to 1 Gbps (Gigabit per second) over distances of up to 100 meters.
- Category 6 (Cat6): Capable of supporting speeds up to 10 Gbps over distances of up to 55 meters.
- Category 6a (Cat6a): Designed for higher-speed applications, supporting speeds up to 10 Gbps over distances of up to 100 meters.
- Category 7 (Cat7): Designed for future-proofing, supporting speeds up to 10 Gbps over distances of up to 100 meters, with improved shielding and reduced crosstalk.

Standards

EN 50288-3-1 IEC/EN 61034-2 EN 50173 IEC 60332-1 ISO/IEC 11801 IEC 61156-6 IEC/EN 60754-1/2 EIA/TIA 568A

Construction

Conductor core: 24 AWG copper soft wire

Insulation: HDPE polyethylene, colored marking of

insulation

Outersheath: PVC

The above design is only a sample of the options available, for reference purposes only. Our policy of continuous improvement may result in a change of specifications without notice. If any discrepancies might be between the data sheet values and standards, we reserve the rights to make technical changes. Our company will not be held responsible, as all or any of pictures, drawings, weights and dimensions details or other elements in this document are only indicative and must not be considered contractual. Contact our sales team for other specifications or custom made products.

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TELECOMMUNICATION CABLES



ETHERNET LAN



Technical Characteristics

| Number of Conductors | 8 |
|---|---|
| Cable Overall Diameter | 7.2 mm |
| Cable Weight | 44 kg/km |
| Conductor Material | Copper |
| Conductor Cross-Section | 0.24 mm² |
| Conductor Class | CL-1 |
| Conductor Type | RE |
| Insulation Material | HDPE |
| Outersheath Material | LSZH |
| Outersheath Color | Green 6018 |
| Max. Permissible Installation Temperature | -20 >< +50 °C |
| Operating Temperature | -40 >< +60 °C |
| Rate Tensile Strength (RTS) | 100 N |
| Crush | 1000 N/10cm |
| Conductor Resistance | Max. 89 Ω/km |
| Resistance unbalance | Max. 2 % |
| Insulation Resistance | ≥ 5000 MΩ/km |
| Nominal Velocity of Propagation | ≥ 66 % |
| Signal Propagation Delay | Max. 537 ns/100m |
| Test Voltage | 1000 V |
| Minimum Bending Radius (Installing) | 8xD |
| Minimum Bending Radius (Operating) | 4xD |
| Packing | Wooden Drum, Plywood Drum, Coil, Rolls, Box |
| Delivery Lengths | To be confirmed by offer |
| Delivery Length Tolerance | ±5 % |

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