

UTP INDOOR DATA CABLES, CATEGORY 3, LSZH SHEATH



Data cable



Flame retardant



Low smoke emission



Zero halogen



ROHS compliant

STANDARDS

Construction: TIA/EIA-568-B, ISO/IEC 11801

Complementary: EN 50265-1-2, EN 50267-2-2, EN 50268-2 and NF C20-454

DESCRIPTION AND APPLICATION

Indoor Telecommunication cables up to 100 pairs, conductors of 0.51 mm, PE insulation, stranded units of 25 pairs. Grey LSZH unshielded (UTP) sheath. Indoor installation for data transmission to the horizontal transmission system or backbone. Category 3 or class A, B or C as defined by the EIA / TIA 568A and ISO / IEC 11801 standard. Flame retardant, halogen-free and low smoke emissions.

CONSTRUCTION

- **Conductors:** Annealed copper, diameter of 0.51 mm.
- **Insulation:** Solid HDPE.
- **Cabling elements:** Pairs.
- **Lay-up:** Up to 25 pairs in layers. Cables above into units of 25 pairs.
- **Sheath:** LSZH material, grey colour.
- **Sheath marking:** The outer sheath shall be marked at regular intervals with the following information:
 - Name of Manufacturer / year / Length markings
 - Other type of markings is also possible according to the customer



| ELECTRICAL CHARACTERISTICS (20°C) | 0,51 |
|---|-------|
| Maximum conductor resistance (Ω/km) | 93,8 |
| Maximum Resistance unbalance (%) $100 \times (R_{\text{max}} - R_{\text{min}}) / (R_{\text{min}} + R_{\text{max}})$ | 5,0 % |
| Minimum insulation resistance ($M\Omega \times \text{km}$, 15°C, 500 V) | 20000 |
| Maximum Mutual capacitance (nF/km , 800 Hz) | 66 |
| Capacitance unbalance pair-earth ($\text{pF}/100\text{m}$, 800 Hz) | 330 |
| Dielectric strength conductor-conductor (Vdc, 3 s) | 2500 |

All drawings, designs, specifications and particulars of weights, dimensions, etc. in this documentation are only indicative and must not be considered contractual.

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| TRANSMISSION CHARACTERISTICS (20°C) | 0,51 |
|---|---|
| <i>Characteristic impedance (Ω, 1-16 MHz)</i> | 100±15 |
| <i>Structural Return losses SRL (dB, 1-16 MHz). Minimum value</i> | 12 |
| <ul style="list-style-type: none"> • De 1 a 10 MHz • De 10 a 16 MHz | $SRL > 12 - 10 \log\left(\frac{f}{10}\right)$ |
| Note: f in MHz | |
| <i>Insertion losses IL (dB/km, 772 KHz a 16 MHz)</i> | $IL < 2,32\sqrt{f} + 0,238f$ |
| Note: f in MHz | |
| <i>Minimum Crosstalk NEXT PS (PSNEXT, dB/100 m, 772 KHz to 16 MHz, group of 25 pairs)</i> | $PSNEXT (25) > 23 - 15 \log\left(\frac{f}{16}\right)$ |
| Note: f in MHz | |

MECHANICAL CHARACTERISTICS

Temperature range: from -25° C to +65° C

Minimum bending radius: 12 x R_{cable}

DIMENSIONS AND WEIGHTS

| Diameter : 0.51 mm | | | | | |
|--------------------|---------|-----------------|------------------------|------------|------|
| Code | # Pairs | Cable diam (mm) | Weight approx. (kg/km) | Length (m) | Drum |
| EA8302051002502N | 25 | 9.7 | 152 | 1000 | 08 |
| EA8302051005002N | 50 | 12.8 | 278 | 1000 | 08 |
| EA8302051010002N | 100 | 17.8 | 534 | 1000 | A2 |

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