

Twisted Pair Installation Cable - Category 6 Class E - U/UTP



Abstract

CAT 6 Class E, U/UTP, Twisted Pair Installation Cable, E_{CA} acc. to EN 50575, without plastic separator, 250 MHz

Application areas

Primary (Campus), Secondary (Riser), Tertiary (Horizontally)

IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T

IEEE 802.5: 16 MB; ISDN; FDDI; ATM; PoE

Norms

ANSI/TIA 568-C; ISO/IEC 11801 2nd Ed.; EN 50173; EN 50288-6-1

FRNC (flame retardancy)

IEC 60332-1; IEC 60754-2; IEC 61034

Physical Properties

| | |
|--------------------------------------|--|
| Conductor | Bare annealed copper, solid AWG 23/1; diameter 0.55 mm nominal |
| Insulation | HD-PE (High Density Polyethylene) |
| Total number of insulated conductors | 8, twisted in 4 pairs |
| Color code | Blue-white, orange-white, green-white, brown-white |
| Individual pair shielding | None |
| Overall shielding | None |
| Outer sheath | E _{CA} acc. to EN 50575 (PVC) |
| Outer sheath diameter | 0.60 mm nominal |
| Outer sheath color | Purple |
| DoP number | 1000_014 |

Mechanical Properties

| | |
|---|---------------------|
| Tensile loading | 150 N max. |
| Dynamic bending radius | 8x AD mm min. |
| Static bending radius | 4x AD mm min. |
| Shipping- and storage temperature range | -20 °C up to +60 °C |
| Operating temperature range | -20 °C up to +75 °C |
| Installations temperature range | 0 °C up to +50 °C |
| Overall diameter | 6.0 mm nominal |

Electrical Properties

| | |
|-------------------------------------|--|
| Impedance | 100 ± 5 Ohm @ 1-600 MHz |
| Capacitance | 40 pF/m nominal @ 800 Hz |
| Capacitance unbalance (pair-ground) | 1.5 pF/m max. @ 1 KHz |
| Insulation resistance | 5 GOhm x km min. |
| DC resistance | 72 Ohm/km max. (2% max. resistance unbalance) |
| DC loop resistance | 147 Ohm/km max. (2% max. resistance unbalance) |
| Voltage resistance | 72 Vdc max. |
| Coupling attenuation | 40 dB |
| Signal propagation delay | 535 nS/100 m max. |
| Propagation delay | 20 nS/100 m max. |
| NVP | 69% |

Transmission Properties

| FREQ. | ATT | NEXT | PS NEXT | RL | ACR | PS ACR | ELFEXT | PS ELFEXT |
|-------|-------|------|---------|------|------|--------|--------|-----------|
| MHz | dB | dB | dB | dB | dB | dB | dB | dB |
| 10 | 5.9 | 59.3 | 56.3 | 25 | 53.4 | 50.4 | 48 | 45 |
| 100 | 19.1 | 44.3 | 41.3 | 20.1 | 25.2 | 22.2 | 28 | 25 |
| 200 | 27.6 | 39.3 | 36.3 | 18 | 11.7 | 8.7 | 22 | 19 |
| 250 | 32.85 | 38.3 | 35.3 | 17.3 | 5.45 | 2.45 | 20 | 17 |

Product Number Information

| Item code | Length | Packaging | Version |
|------------------|--------|-----------|---------|
| DK-1611-V-1-NC | 100 m | Carton | Simplex |
| DK-1611-V-305-NC | 305 m | Carton | Simplex |
| DK-1611-V-5-NC | 500 m | Drum | Simplex |