

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



Abstract

CAT 6 Class E, F/UTP, Twisted Pair Installation Cable, 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 50288-5-1

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	Aluminum foil, providing 100% coverage, with drain wire
Outer sheath	E _{CA} to B2 _{CA} acc. to EN 50575
Outer sheath diameter (nominal)	0.5 mm (E _{CA}); 0.6 mm (D _{CA}); 0.8 mm (C _{CA}); 0.8 mm (B2 _{CA})
Outer sheath color	Purple

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 (nominal)	7.0 mm (E _{CA}); 7.2 mm (D _{CA}); 7.6 mm (C _{CA}); 7.6 mm (B2 _{CA})
Weight (kg/km)	46 kg (E _{CA}); 47 kg (D _{CA}); 48.5 kg (C _{CA}); 48.5 kg (B2 _{CA})

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%

Product Number Information

Item code	Length/Packaging	Reaction to fire acc. to EN 50575	DoP number
DK-1623-VH-1	100 m box, simplex	E _{CA}	1000_003
DK-1623-VH-305	305 m box, simplex		
DK-1623-VH-5	500 m drum, simplex		
DK-1624-VH-1	100 m box, simplex	D _{CA}	1000_033
DK-1624-VH-305	305 m box, simplex		
DK-1624-VH-5	500 m drum, simplex		
DK-1625-VH-1	100 m box, simplex	C _{CA}	1000_034
DK-1625-VH-305	305 m box, simplex		
DK-1625-VH-5	500 m drum, simplex		
DK-1626-VH-1	100 m box, simplex	B2 _{CA}	1000_035
DK-1626-VH-305	305 m box, simplex		
DK-1626-VH-5	500 m drum, simplex		

Transmission Properties

FREQ.	ATT	NEXT	PS NEXT	RL	ACR	PS ACR	ELFEXT	PS ELFEXT
MHz	dB	dB	dB	dB	dB	dB	dB	dB
1	2.1	74.3	71.3	26	72.2	69.2	68	65
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
250	31.1	38.3	35.3	17.3	7.2	4.2	20	17