

Twisted Pair Installation Cable - Category 6A Class EA - U/UTP



Abstract

CAT 6A Class EA, U/UTP, Twisted Pair Installation Cable, 500 MHz

Application areas

Primary (Campus), Secondary (Riser), Tertiary (Horizontally)
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T
IEEE 802.5: 16 MB; ISDN; FDDI; ATM; PoE/PoE+

Norms

ANSI/TIA-568-C; ISO/IEC 11801 2nd Ed.; EN 50173; EN 50288-11-1

Physical Properties

Conductor	Bare annealed copper, solid AWG 23/1; diameter 0.56 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} to B2 _{CA} acc. to EN 50575
Outer sheath diameter	0.5 mm (E _{CA}); 0.6 mm (D _{CA}); 1.2 mm (C _{CA}); 1.6 mm (B2 _{CA})
Outer sheath color	Light blue (RAL 5012)

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)	7.1 mm (E _{CA}); 7.3 mm (D _{CA}); 7.4 mm (C _{CA}); 8.2 mm (B2 _{CA})
Weight (kg/km)	50 kg (E _{CA}); 44 kg (D _{CA}); 74 kg (C _{CA}); 85 kg (B2 _{CA})

Electrical Properties

Impedance	100 ± 5 Ohm @ 1-600 MHz
Capacitance	40 pF/m nominal @ 1 KHz
Capacitance unbalance (pair-ground)	1.6 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	65 dB
Signal propagation delay	450 nS/100 m max.
Propagation delay	15 nS/100 m max.
Separating class	„c“ acc. to EN 50174-2
NVP	70%

Product Number Information

Item code	Length/Packaging	Reaction to fire acc. to EN 50575	DoP number
DK-1613-A-VH-1	100 m box, simplex	E _{CA}	1000_005
DK-1613-A-VH-305	305 m drum, simplex		
DK-1613-A-VH-5	500 m drum, simplex		
DK-1614-A-VH-1	100 m box, simplex	D _{CA}	1000_030
DK-1614-A-VH-305	305 m drum, simplex		
DK-1614-A-VH-5	500 m drum, simplex		
DK-1615-A-VH-1	100 m box, simplex	C _{CA}	1000_031
DK-1615-A-VH-305	305 m drum, simplex		
DK-1615-A-VH-5	500 m drum, simplex		
DK-1616-A-VH-1	100 m box, simplex	B2 _{CA}	1000_032
DK-1616-A-VH-305	305 m drum, simplex		
DK-1616-A-VH-5	500 m drum, simplex		

Transmission Properties

FREQ.	ATT	NEXT	PS NEXT	RL	ACR	PS ACR	ELFEXT	PS ELFEXT	TCL
MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB
4	3.7	65.27	62.27	25	61.57	58.57	55.8	52.8	40
10	5.9	59.3	56.3	25	53.4	50.4	47.8	44.8	40
16	7.4	56.24	53.2	25	48.84	45.84	43.7	40.7	38
20	8.3	54.78	51.78	25	46.48	43.48	41.8	38.8	37
31.5	10.5	51.83	48.83	23.6	41.33	38.33	37.8	34.8	35
62.5	14.9	47.36	46.36	21.5	32.46	39.46	31.9	28.9	32
100	19	44.3	41.3	20.1	25.3	22.3	27.8	24.8	30
200	27.5	42.1	36.78	18	14.6	11.6	21.8	18.8	27
300	34.2	40	34.14	16.8	5.8	2.8	18.3	15.3	25.2
500	37.2	38.5	31.8	15.2	1.3	-2.3	13.8	10.8	23