

## Twisted Pair Installation Cable - Category 6<sub>A</sub> Class E<sub>A</sub> - U/FTP



### Abstract

CAT 6<sub>A</sub> Class E<sub>A</sub>, U/FTP, 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 2<sup>nd</sup> Ed.; EN 50173-1; EN 50288-10-1

### 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	Aluminum foil, providing 100% coverage
Overall shielding	None, with drain wire
Outer sheath	E <sub>CA</sub> to B2 <sub>CA</sub> acc. to EN 50575
Outer sheath diameter (nominal)	0.5 mm (E <sub>CA</sub> ); 0.6 mm (D <sub>CA</sub> ); 0.8 mm (C <sub>CA</sub> ); 0.8 mm (B2 <sub>CA</sub> )
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
Outer diameter (nominal)	7.0 mm (E <sub>CA</sub> ); 7.2 mm (D <sub>CA</sub> ); 7.6 mm (C <sub>CA</sub> ); 7.6 mm (B2 <sub>CA</sub> )
Weight (kg/km)	47.5 kg (E <sub>CA</sub> ); 48.5 kg (D <sub>CA</sub> ); 49.5 kg (C <sub>CA</sub> ); 49.5 kg (B2 <sub>CA</sub> )

### Electrical Properties

Impedance	100 ± 15 Ohm @ 4-100 MHz; 100 ± 25 Ohm @ 100-600 MHz
Capacitance	45 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	95 Ohm/km max. (2% max. resistance unbalance)
DC loop resistance	190 Ohm/km max. (2% max. resistance unbalance)
Voltage resistance	72 Vdc max.
Coupling attenuation	70 dB
Signal propagation delay	450 nS/100 m max.
Propagation delay	25 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-1623-A-VH-1	100 m box, simplex	E <sub>CA</sub>	1000_006
DK-1623-A-VH-305	305 m drum, simplex		
DK-1623-A-VH-5	500 m drum, simplex		
DK-1624-A-VH-1	100 m box, simplex	D <sub>CA</sub>	1000_036
DK-1624-A-VH-305	305 m drum, simplex		
DK-1624-A-VH-5	500 m drum, simplex		
DK-1625-A-VH-1	100 m box, simplex	C <sub>CA</sub>	1000_022
DK-1625-A-VH-305	305 m drum, simplex		
DK-1625-A-VH-5	500 m drum, simplex		
DK-1626-A-VH-1	100 m box, simplex	B2 <sub>CA</sub>	1000_037
DK-1626-A-VH-305	305 m drum, simplex		
DK-1626-A-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	95	92	25	92.9	89.9	68	65
10	5.9	90	87	25	84.1	81.1	48	45
100	19.1	75	72	20.1	55.9	52.9	28	25
250	31.1	66	63	17.3	34.9	31.9	20	17
500	45.3	57	54	15.2	11.7	8.7	14	11