

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



Abstract

CAT 6 Class E, U/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 568.2-D; ISO/IEC 11801-1.; EN 50173; EN 50288-6-1
EN 50399:2011+A1:2016, EN 60332-1-2:2004+A11:2016, EN 61034-2:2005+A1:2013, EN 60754-2:2014

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	D _{CA} acc. to EN 50575 (DoP_1000_108)
Outer sheath diameter (nominal)	0.6 mm
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)	6.3 mm
Weight (kg/km)	42 kg



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-1614-VH-1	100 m ring, simplex	D _{CA}	1000_108
DK-1614-VH-305	305 m box, simplex		
DK-1614-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
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