

Twisted Pair Installation Cable - Category 7 Class F - S/FTP - Buried Cable



Abstract

CAT 7 Class F, S/FTP, Twisted Pair Buried Cable, PE outer sheath, inner sheath E_{CA} acc. to EN 50575, 1200 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

ISO/IEC 11801 2nd Ed.; IEC 61156-5

EN 50173; EN 50288-4-1

FRNC (flame retardancy)

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

Inner sheath

Physical Properties

Conductor	Bare annealed copper, solid AWG 23/1; diameter 0.56 mm nominal
Insulation	SFS-PE (Foam-Skin 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
Outer sheath	PE (Polyethylene); UV resistant
Outer sheath diameter	0.50 mm nominal
Outer sheath color	Black (RAL 9005)
Inner sheath	E_{CA} acc. to EN 50575
Inner sheath diameter	0.50 mm nominal
Inner sheath color	Purple
DoP number	1000_007

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	-50 °C up to +60 °C
Installations temperature range	0 °C up to +60 °C
Overall diameter	8.5 mm nominal
Flame retardancy inner sheath	IEC 60332-1 (LSZH-1/FRNC-B)
Halogen free & smoke-proof inner sheath	IEC 60754-2 & IEC 61034
Fire load	650 MJ/km
Weight	66,5 kg/km

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	„d“ acc. to EN 50174-2
NVP	79%

Transmission Properties

FREQ.	ATT	NEXT	PS NEXT	RL	ACR	PS ACR	ELFEXT	PS ELFEXT	EL TCL
MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB
1	2.0	78.0	75.0	20.0	76.0	73.0	78.0	75.0	35.0
10	5.9	78.0	75.0	25.0	72.1	69.1	74.0	71.0	15.0
100	19.1	72.4	69.4	20.1	53.3	50.3	54.0	51.0	NS
250	31.0	66.5	63.5	17.3	35.5	32.5	46.0	43.0	NS
500	45.3	61.9	58.9	17.3	16.6	13.6	40.0	37.0	NS
600	50.1	60.8	57.8	17.3	10.7	7.7	38.4	35.4	NS
1000	66.9	57.4	54.4	13.1	NS	NS	35.3	32.3	NS
1200	74.4	56.2	53.2	12.6	NS	NS	33.8	30.8	NS

Product Number Information

Item code	Length	Packaging	Version
DK-1741-VH-10-OD	1000 m	Drum	Simplex
DK-1741-VH-1-OD	100 m	Ring	Simplex