



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



Abstract

CAT 7 Class F, S/FTP, Twisted Pair Installation Cable, 1200 MHz

Application areas

Primary (Campus), Secondary (Riser), Tertiary (Horizontally)
IEEE 802.3an; 100Base-T; 1000Base-T; 10GBase-T
IEEE 802.5: 16 MB; ISDN; FDDI; ATM; PoE/PoE+/4PPoE

Certification

GHMT Type Approval (z5423b-19)

Standards

ISO/IEC 11801 3rd Ed.; IEC 61156-5; TIA-568.2-D
EN 50173-1/4; EN 50288-4-1
IEC 60754-1/-2, EN 50267-2-1/-2-2
VDE 0482-267-2-1/-2-2
AREI-RGIE Art.104-SA gemäß LV

Physical Properties

Conductor	Bare annealed copper, solid AWG 23/1
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
Overall shielding	Copper braid
Outer sheath	E _{CA} to B2 _{CA} acc. to EN 50575; LSZH
Outer sheath diameter (nominal)	0.50 mm (E _{CA}); 0.52 mm (D _{CA}); 0.60 mm (C _{CA}); 0.60 mm (B2 _{CA})
Outer sheath color	Orange (RAL 2000)

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 +75 °C
Operating temperature range	-20 °C up to +50 °C
Installations temperature range	0 °C up to +50 °C
Overall diameter Simplex (nominal)	7,0 mm (E _{CA}); 7,2 mm (D _{CA}); 7,5 mm (C _{CA}); 7,5 mm (B2 _{CA})
Weight (kg/km)	49,5 kg (E _{CA}); 51 kg (D _{CA}); 53 kg (C _{CA}); 53 kg (B2 _{CA})

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	CA-Type 1b
Signal propagation delay	450 nS/100 m max.
Propagation delay	10 nS/100 m max.
Separating class	„d“ acc. to EN 50174-2
NVP	75%

Product Number Information

Item code	Length/ Packaging	Reaction to fire acc. to EN 50575	DoP number
DK-1741-VH-1	100 m ring, Simplex	E _{CA}	DoP_1000_007
DK-1741-VH-5	500 m drum, Simplex		
DK-1741-VH-10	1000 m drum, Simplex		
DK-1741-VH-D-1	100 m ring, Duplex		
DK-1741-VH-D-5	500 m drum, Duplex		
DK-1743-VH-1	100 m ring, Simplex	D _{CA}	DoP_1000_008
DK-1743-VH-5	500 m drum, Simplex		
DK-1743-VH-10	1000 m drum, Simplex		
DK-1743-VH-D-1	100 m ring, Duplex		
DK-1743-VH-D-5	500 m drum, Duplex		
DK-1744-VH-1	100 m ring, Simplex	C _{CA}	DoP_1000_028
DK-1744-VH-5	500 m drum, Simplex		
DK-1744-VH-10	1000 m drum, Simplex		
DK-1744-VH-D-1	100 m ring, Duplex		
DK-1744-VH-D-5	500 m drum, Duplex		
DK-1745-VH-1	100 m ring, Simplex	B2 _{CA}	DoP_1000_029
DK-1745-VH-5	500 m drum, Simplex		
DK-1745-VH-10	1000 m drum, Simplex		
DK-1745-VH-D-1	100 m ring, Duplex		
DK-1745-VH-D-5	500 m drum, Duplex		



Transmission Properties

FREQ.	ATT	NEXT	PS-NEXT	ACR	PS-ACR	EL-FEXT	PS-ELFEXT	RL
MHz	dB	dB	dB	dB	dB	dB	dB	dB
1	2,0	78,0	75,0	76,0	73,0	78,0	75,0	20,0
10	5,9	78,0	75,0	72,1	69,1	74,0	71,0	25,0
100	19,1	72,4	69,4	53,3	50,3	54,0	51,0	20,1
250	31,0	66,5	63,5	35,5	32,5	46,0	43,0	17,3
500	45,3	61,9	58,9	16,6	13,6	40,0	37,0	17,3
600	50,1	60,8	57,8	10,7	7,7	38,4	35,4	17,3
1000	66,9	57,4	54,4	NS	NS	35,3	32,3	13,1
1200	74,4	56,2	53,2	NS	NS	33,8	30,8	12,6