Twisted Pair Installation Cable - Category 7_A Class F_A - S/FTP





Abstract

CAT 7_A Class F_A, S/FTP, Twisted Pair Installation Cable, 1500 MHz

Application areas	Primary (Campus), Secondary (Riser), Tertiary (Horizontally) IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 2.5GBase-T; 5GBase-T; 10GBase-T IEEE 802.5: 16 MB; ISDN; FDDI; ATM; CATV; PoE/PoE+/4PPoE
Certification	GHMT PVP Certified
Standards	ISO/IEC 11801-1 Ed.1.0 (2017-11) DIN EN 50173-1 (2018-10) IEC 61156-5 Ed.3.0 (2020-04)
Flame spread	EN 60332-1-2 (LSOH-PVC)
Halogen-free, corrosiveness	EN 60754-1/2 (LSOH)
Smoke Density	EN 61034-2

Physical Properties

Conductor	Bare annealed copper, solid AWG 22/1
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 tinned braid
Outer sheath	Dca to B2ca acc. to EN 50575; LSZH
Outer sheath diameter	(nominal) 0.60 mm (D_{CA}); 0.60 mm (C_{CA}); 0.60 mm ($B2_{CA}$)
Outer sheath color	Yellow (RAL 1028)

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 +60 °C
Installations temperature range	0 °C up to +50 °C
Overall diameter Simplex (nominal)	7.8 mm (D_{CA}); 7.8 mm (C_{CA}); 7.8 mm ($B2_{CA}$)
Weight (kg/km)	65 kg (D_{CA}); 65 kg (C_{CA}); 65 kg ($B2_{CA}$)

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Electrical Properties

Impedance	100 ± 5 Ohm @ 1-1000 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	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	74%

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	1,6	110	107	108	105	109	106	26,1
10	4,2	110	107	106	103	109	106	32,3
100	14,4	110	107	96	93	93	90	36,2
250	24,5	105	102	81	78	83	80	34,8
500	34	105	102	71	68	70	67	31,8
600	37,7	100	97	62	59	64	61	28,5
1000	49	92	89	43	40	49	46	22,2
1200	54,9	88	85	33	31	40	37	20,2
1500	62	73	70	11	8	25	22	12,3

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