

UC500 S23 Cat.6_A U/FTP C_{ca} s1a d1 a1

U/FTP AWG23/1 Installation Cable



Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T ; 10GBase-T
IEEE 802.5 16 MB; ISDN; TPDDI; ATM
Power over Ethernet (PoE) / Type 1-4

Standards

EN 50173-1; EN 50288-10-1
ISO/IEC 11801; IEC 61156-5
IEEE 802.3at / af / bt

Flame resistance

EN 50399: Class C_{ca} s1a d1 a1
LSHF-FR (LSOH-FR): IEC 60332-1; IEC 60332-3-24; IEC 60754-2; IEC 61034

Construction

Conductor	bare copper wire AWG23/1
Insulation	Foamskin Polyethylene, Ø 1.35 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil, drain wire AWG26 tinned
Cable lay up	4 pairs (PiMF) to the core
Sheath	LSHF-FR C _{ca} s1a d1 a1, blue RAL 5012

Mechanical properties

Bending radius	without load	4 x D
	with load	8 x D
Temperature range	during operation	-20°C to + 60°C
	during installation	0°C to + 50°C

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Electrical properties

at 20°C ± 5°C

Loop resistance		154 Ω/km	
Resistance unbalance		≤ 2%	
Insulation resistance	(500 V)	≥ 2000 MΩ *km	
Mutual capacitance	at 800 Hz	Nom. 43 nF/km	
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km	
Mean characteristic impedance	100 MHz	100 ± 5	
Nominal velocity of propagation		Ca. 79 %	
Propagation delay		≤ 427 ns/100m	
Delay skew		≤ 12 ns/100m	
Test voltage	(DC, 1 min) core/ core and core/screen	1000 V	
Transfer impedance	at 1 MHz	≤ 50 mΩ /m	Grade 2
	at 10 MHz	≤ 100 mΩ /m	
	at 30 MHz	≤ 200 mΩ /m	
Coupling attenuation		55 dB	Type 2
Segregation classification acc. EN 50174-2		„c“	

Electrical data (nominal)

acc. to Cat.6A (at 20°C)

F (MHz)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ACRF (dB/100m)	PS-ACRF (dB/100m)	Return loss (dB)
1.0	1.8	100	97	98	95	105	105	-
4.0	3.4	100	97	97	94	105	102	27
10.0	5.4	100	97	95	92	97	94	30
16.0	6.8	100	97	93	90	93	90	30
20.0	7.7	100	97	92	89	91	88	30
31.2	9.6	100	97	90	87	87	84	30
62.5	13.7	100	97	86	83	81	78	30
100.0	17.4	100	97	83	80	77	74	30
125.0	19.5	95	92	75	72	75	72	26
155.5	21.9	94	91	72	69	73	70	26
175.0	23.3	93	90	70	67	72	69	25
200.0	25.0	92	89	67	64	71	68	25
250.0	28.1	90	87	62	59	69	66	24
300.0	30.9	89	86	58	55	67	64	24
400.0	38.3	87	84	48	45	64	61	23
500.0	44.8	85	82	40	37	61	58	22

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Product order data

Reference Code	Cable type	Brand name	Outer diameter mm	Euro Class	Fire load		Weight kg/km	Copper content	Tensile force
					MJ/km	kWh/m			N
60091628	J-02YS(St)Y 4x2x0.56	UC500 S23 C6A U/FTP 4P C _{ca}	6.8	C _{ca} s1a d1 a1	495	0.14	46	24	100
60091629	J-02YS(St)Y 4x2x0.56	UC500 S23 C6A U/FTP 4P C _{ca} 500DW	6.8	C _{ca} s1a d1 a1	495	0.14	46	24	100
60091630	J-02YS(St)Y 4x2x0.56	UC500 S23 C6A U/FTP 4P C _{ca} 1000DW	6.8	C _{ca} s1a d1 a1	495	0.14	46	24	100
60091631	J-02YS(St)Y 4x2x0.56	UC500 S23 C6A U/FTP 4P C _{ca} 305BR	6.8	C _{ca} s1a d1 a1	495	0.14	46	24	100
60062332	J-02YS(St)Y 2x4x2x0.56	UC500 S23 C6A U/FTP C _{ca} 2x4P	6.90x14.0	C _{ca} s1a d1 a1	995	0.29	92	48	200