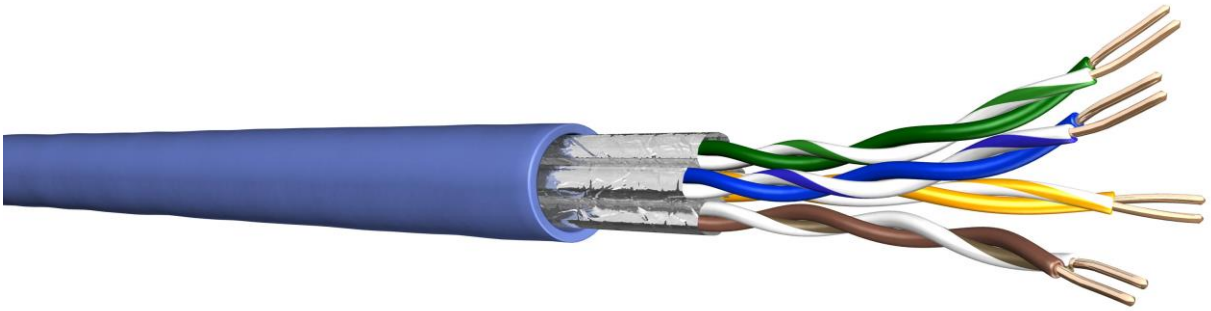
UC500 S23 Cat.6$_A$ LSHF D$_{ca}$

U/FTP AWG23/1



Application

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

Standards

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

Flame resistance

EN 50399:	Class D$_{ca}$ s2d2a1
LSHF D$_{ca}$:	IEC 60332-1; IEC 60754-2; IEC 61034

Construction

Conductor	bare copper wire, Ø 0.56 mm (AWG23/1)
Insulation	Foamskin Polyethylene, Ø 1.35 mm
Twisting	2 cores to the pair
Pair screen	High Performance STP: Al-laminated plastic foil, patented wrapping of two pairs each, drain wire AWG26 tinned
Cable lay up	2x2 pairs to the core
Sheath	LSHF D$_{ca}$, blue RAL 5024

Mechanical properties

Bending radius	Installation	8 x Outer diameter
	Installed	4 x Outer diameter
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 ± 5Ω	
Nominal velocity of propagation		Ca. 79 %	
Propagation delay	Nominal	≤ 427 ns/100m	
Delay skew	Nominal	≤ 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

Product code	Cable type	Brand name	Outer diameter	CPR Euro Class	Fire load		Weight	Copper content	Tensile force
			mm		MJ/km	kWh/m	kg/km		N
60015537	J-02YS(St)H 4x2x0.56	UC500 S23 Cat.6 $_A$ 4P LSHF D_{ca}	6.8	D_{ca} s2d2a1	493	0.137	45	24	100
60015554	J-02YS(St)H 2x4x2x0.56	UC500 S23 Cat.6 $_A$ 2x4P LSHF D_{ca}	6.9 x 13.9	D_{ca} s2d2a1	986	0.274	90	48	200

Product Code Table

Product Description	PG Reference Code	PG Part Number
UC500 S23 C6A U/FTP 4P LSHF D_{ca}	60015537	60015537
UC500 S23 C6A U/FTP 4P LSHF D_{ca} 305BR	60015537	60011113
UC500 S23 C6A U/FTP 4P LSHF D_{ca} 500DW	60015537	60011412
UC500 S23 C6A U/FTP 4P LSHF D_{ca} 1000DW	60015537	60011413
UC500 S23 C6A U/FTP 2x4P LSHF D_{ca}	60015554	60015554
UC500 S23 C6A U/FTP 2x4P LSHF D_{ca} 500DW	60015554	60015555
UC500 S23 C6A U/FTP 2x4P LSHF D_{ca} 500DP	60015554	60015557

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