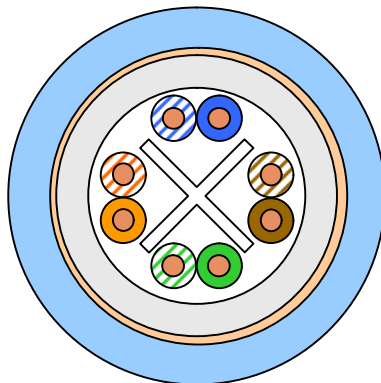


# UC500 23 Cat.6<sub>A</sub>

## U/UTP



## 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

## Standards

EIA/TIA-568-B.2-10 Draft 5.0  
 ISO/IEC 11801 2<sup>nd</sup> ed.  
 EN 50173-1  
 EN 50288-10 Draft  
 IEC 61156-5 (46C/783/CDV)

## Fire rating

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

## Construction

Conductor	Bare copper wire Ø 0.57 mm (AWG23)
Insulation	PE, Ø 1.1 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core separated with non metallic cross separator (spline)
Inner sheath	FRNC, naturally coloured Ø 7,3 mm
Binder	Patented 10G-Folie
Outer Sheath	LSHF (LSOH) Ø 8,9 mm, blue RAL5024

## Mechanical Properties

Bending radius	Without load	≥ 30 mm
	With load	≥ 60 mm
Temperature range	During operation	-20°C to + 60°C
	During installation	0°C to + 50°C

We reserve the right to alter this specification without notice

## UC500 23 Cat.6<sub>A</sub>

### Electrical Properties

at 20°C

Loop resistance		≤ 165 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500V)	≥ 5000 MΩkm
Mutal capacitance	At 800 Hz	Nom. 48 nF/km
Capacitance unbalance	Pair to ground	≤ 1500 pF/km
Characteristic impedance	1-100 MHz	(100 ± 15) Ω
	100-250 MHz	(100 ± 22) Ω
	250-500 MHz	(100 ± 25) Ω
Nominal velocity of propagation		Ca. 67% c
Propagation delay		≤ 535 ns/100m
Delay skew		≤ 45 ns/100m
Test voltage	DC, 1 min	1000 V
Coupling attenuation		≥ 40 dB

### Transmission characteristics according to Cat 6A

at 20°C

f	Attenuation	RL	NEXT	PSNEXT	ELFEXT *)	PSELFEXT	PSExNEXT	PSExELFEXT *)
MHz	dB/100m max.	DB Min.	dB min.	DB min.	dB/100m min.	dB/100m min.	DB min.	dB min.
1	2,1	20,0	75,3	72,3	68,0	65,0	67,0	67,0
4	3,8	23,0	66,3	63,3	56,0	53,0	67,0	66,2
10	5,9	25,0	60,3	57,3	48,0	45,0	67,0	58,2
16	7,5	25,0	57,2	54,2	43,9	41,9	67,0	54,1
20	8,4	25,0	55,8	52,8	42,0	39,0	67,0	52,2
31,25	10,5	23,6	52,9	49,9	38,1	35,1	67,0	48,3
62,5	15,0	21,5	48,4	45,4	32,1	29,1	67,0	42,3
100	19,1	20,1	45,3	42,3	28,0	25,0	65,6	38,2
125	21,5	19,4	43,8	40,8	26,1	23,1	61,0	36,3
155,5	24,1	18,8	42,4	39,4	24,2	21,2	59,6	34,4
175	25,7	18,4	41,7	38,7	23,1	20,1	58,9	33,3
200	27,6	18,0	40,8	37,8	22,0	19,0	58,0	32,2
250	31,1	17,3	39,3	36,3	20,0	17,0	56,5	30,2
300	34,3	16,8	38,1	35,1	18,5	15,5	55,3	28,7
500	45,3	15,2	34,8	31,8	14,0	11,0	52,0	24,2

\*) No Measurement of ELFEXT and PSELFEXT is required when FEXT is above 70dB

### Technical data

Product code	Cable type	Brand name	Outer diameter mm	Fire load		Weight kg/km	Copper content kg/km	Tensile force max. N
				MJ/km	kWh/m			
1001117	J-2YHH 4x2x0.57	UC500 23 U/UTP Cat.6 <sub>A</sub>	8.9	1075	0,299	73	21	100

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