

# UC300 24 Cat.5e D<sub>ca</sub>

## U/UTP AWG23/1 Installation Cable



### Application

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

### Standards

EIA/TIA 568 C.2  
ISO/IEC 11801.; IEC 61156-5  
EN 50173; EN 50288-3-1  
IEEE 802.3af / at / bt

### Flame resistance

EN 50399: Class D<sub>cas</sub>2d2a1; Class Eca  
LSHF (LSOH): IEC 60332-1; IEC 60754-2; IEC 61034

### Construction

Conductor	bare copper wire Ø 0.5 mm (AWG24/1)
Insulation	Polyethylene, Ø 0.9 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core
Sheath	LSHF D <sub>ca</sub> (FRNC, LSOH), grey RAL 7035

### Mechanical properties

Minimum bending radius	Installation	8 x D
	Installed	4 x D
Temperature range	during operation	-20°C up to + 60°C
	during installation	0°C up to + 50°C

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### Electrical properties

at 20°C

DC loop resistance	≤ 190 Ω /km
Resistance unbalance	≤ 2%
Insulation resistance (500 V)	≥ 2000 MΩ *km
Capacitance at 800 Hz	nom. 48 nF/km
Capacitance unbalance (pair to ground)	≤ 1500 pF/km
Mean characteristic impedance 100 MHz	100 ± 5 Ω
Nominal velocity of propagation	approx. 67 %
Propagation delay	Nominal ≤ 535 ns/100m
Delay skew	Nominal ≤ 20 ns/100m
Test voltage (DC, 1 min)	1000 V
Core/Core	
Coupling attenuation	≥ 40 dB

### Nominal transmission characteristics

acc. Cat.5e at 20°C

f	Attenuation	NEXT	PS-NEXT	ACR	PS-ACR	ACRF	PS- ACRF	Return loss
(MHz)	(dB/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB)
1	1,9	71	68	69,1	66,1	68	65	20
4	3,7	62	59	58,3	55,3	56	53	23
10	6	56	53	50	47,0	48	45	25
16	7,6	53	50	45,4	42,4	44	41	25
20	8,5	51	48	42,5	39,5	42	39	25
31,2	10,7	49	46	38,3	35,3	38	35	24
62,5	15,7	44	41	28,3	25,3	32	29	22
100	19,8	41	38	21,2	18,2	28	25	20
125	22,3	40	37	17,7	14,7	26	23	19
155,5	24,2	38	35	13,8	10,8	24	21	
175	25,7	37	34	11,3	8,3	23	20	
200	27,5	36	33	8,5	5,5	22	19	
250	29,2	35	32	5,8	2,8	20	17	
300	32,0	34	31	2,0	-1,0	16	13	

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### Product order data

Product Reference Code	Product name	Outer diameter	Euro Class	Fire load		Weight	Copper content	Tensile force
		Mm		MJ/km	kWh/m	kg/km	kg/km	N
60060056	UC300 24 Cat.5e U/UTP LSHF Dca	5.1	D <sub>cas</sub> 2d2a1	336	0.101	36	17.5	100N
60060061	UC300 24 Cat.5e U/UTP LSHF Dca 305BR							
60060063	UC300 24 Cat.5e U/UTP LSHF Dca 500DW							
60060062	UC300 24 Cat.5e U/UTP LSHF Dca 1000DW							

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