

UC300 S24 Cat.5e LSHF D_{ca}

F/UTP AWG24/1 Installation Cable



Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;
IEEE 802.5 16 MB; ISDN; TPDD1; ATM
Power over Ethernet (PoE) / PoE+

Standards

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

Flame resistance

EN 50399: Class Dcas2d2a1; Class Eca
LSHF (LSOH): IEC 60332-1; IEC 60754-2; IEC 61034

Construction

Conductor	bare copper wire, Ø 0.51 mm (AWG24/1)
Insulation	PE, Ø 1.1 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core
Screen	Al-laminated plastic foil, Drain wire AWG26 tinned
Sheath	LSHF D _{ca} , grey RAL 7035

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		≤ 190 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 2000 MΩxkm
Mutual capacitance	at 800 Hz	Nom. 48 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Mean characteristic impedance	100 MHz	100 ± 5 Ω
Nominal velocity of propagation		ca. 67%
Propagation delay		≤ 535 ns/100 m
Delay skew		≤ 20 ns/100 m
Test voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer impedance	at 1 MHz	≤ 50 mΩ /m
	at 10 MHz	≤ 100 mΩ /m
	at 30 MHz	≤ 200 mΩ /m
Coupling attenuation		≥ 55 dB
Segregation class		"c"

Electrical data (nominal)

acc. to Cat.5e (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	1.9	71	68	69.1	66.1	68	65	20
4.0	3.7	62	59	58.3	55.3	56	53	23
10.0	6.0	56	53	50.0	47.0	48	45	25
16.0	7.6	53	50	45.4	42.4	44	41	25
20.0	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
100.0	19.8	41	38	21.2	18.2	28	25	20
125.0	22.3	40	37	17.7	14.7	26	23	19
155.5	24.2	38	35	13.8	10.8	24	21	
175.0	25.7	37	34	11.3	8.3	23	20	
200.0	27.5	36	33	8.5	5.5	22	19	
250.0	29.2	35	32	5.8	2.8	20	17	
300.0	32.0	34	31	2.0	-1.0	16	13	

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Product order data

Product Reference Code	Product name	Outer diameter mm	Euro Class	Fire load		Weight kg/km	Copper index	Tensile force N
				MJ/km	kWh/km			
60061112	UC300 S24 Cat.5e F/UTP LSHF D _{ca}	5.9	D _{ca} s2d2a1	415	0,119	38	19.8	100
60061113	UC300 S24 Cat.5e F/UTP LSHF D _{ca} 100R							
60061114	UC300 S24 Cat.5e F/UTP LSHF D _{ca} 500DW							
60061115	UC300 S24 Cat.5e F/UTP LSHF D _{ca} 1000DW							
60061196	UC300 S24 Cat.5e F/UTP LSHF D _{ca} 305BR							

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