

Draka - UC300 HS24 Cat.5e SF/UTP 4P (LSHF)



UC Data Cable - Draka Office Network Solution

Symmetrical 100 Ω data transmission cables from Universal Cable line UC.. acc. to ISO/IEC 11801, EN 50173 and EIA/TIA 568A are used for high speed data transmission, mainly in secondary and horizontal cabling in standardised, manufacturer-independent local networks (LAN), ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T and CATV. All shielded cables of line UC400 and up are ready for 10 Gigabit Ethernet (IEEE802.3: 10GBase-T).

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) / PoE+

Standards

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



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Flame resistance

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

Technical Data

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 and Copper braid, tinned
Sheath	LSHF (FRNC, LSOH), grey RAL 7035

Mechanical properties

Minimum bending radius	Without load	≥ 25 mm
	With load	≥ 50 mm
Temperature range	During operation	-20°C up to +60°C
	During installation	0°C up to +50°C

Electrical properties at 20°C

Loop resistance		≤ 190 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 2000 MΩ*km
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	12 mΩ /m
	at 10 MHz	10 mΩ /m
	at 30 MHz	30 mΩ /m
Coupling attenuation		80 dB
Segregation classification acc. EN 50174-2		"d"

Electrical Data (nominal) acc. to Cat.7 (at 20°C)

F	Attenuation	NEXT	PS-NEXT	ACR	PS-ACR	ELFEXT	PS-ELFEXT	Return loss
MHZ	dB/100m	dB	dB	dB/100m	dB/100m	dB/100m	dB/100m	dB
1.0	1.9	71	68	69.1	66.1	68	65	20

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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	42.5	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	

Outer diameter	6.4 mm
Fire load	433 MJ/km
	0.120 kWh/m
Weight	47 kg/km
Copper content	27
Tensile force	120 N

Product variants & accessories

Art.-No.	Description
UC300-HS24-4P	Draka - UC300 HS24 Cat.5e SF/UTP 4P (LSHF)