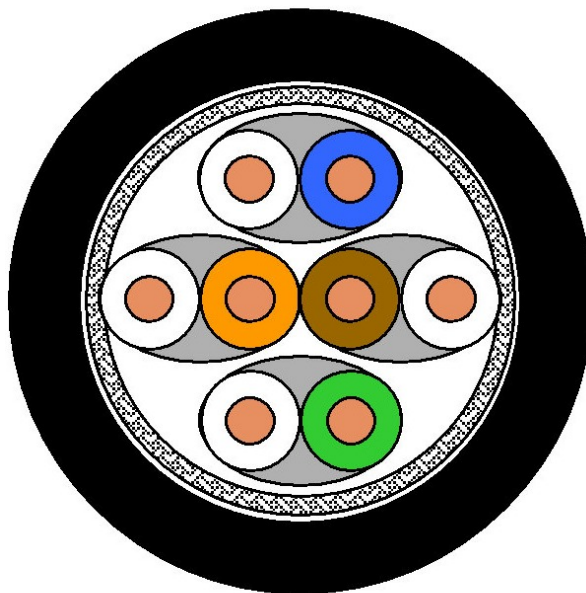


Draka - UC900 SS23 Cat.7 S/FTP, LSHF bzw. LSHF-FR for industrial applications



## UC Industrial cables

Especially in difficult industrial conditions electrical reserves are needed to ensure an operation of Industrial Ethernet in each case. The cable must withstand loads as follows:

- Chemical substances such as oils, solvents etc.
- Permanent movement or vibration such as the use in cable carriers
- Advanced ambient electromagnetic interference
- Both the cable and through the cable



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## Technical Data

### Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)  
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T  
IEEE 802.5 16 MB; ISDN; TPDDI; ATM

### Standards

EN 50173-1; EN 50288-4-1  
ISO/IEC 11801; IEC 61156-5

### Flame resistance

LSHF(LSOH): IEC 60332-1; IEC 60754-2; IEC 61034  
LSHF-FR: IEC 60332-1; IEC 60332-3-24; IEC 60754-2; IEC 61034

### Construction

Conductor	bare copper wire, Ø 0.56 mm (AWG 23)
Insulation	foamskin PE, Ø 1.4 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil
Cable lay up	4 pairs (PiMF) to the core
Screen	copper braid, tinned
Sheath LSHF	aluminum tape connected with sheath LSHF (LSOH), black, wall thickness 1.5 mm
Sheath LSHF-FR	alternative: aluminum tape connected with sheath LSHF-FR (LSOH-FR), black, wall thickness 1.5 mm

### Mechanical properties

Bending radius	without load	≥ 40 mm
	with load	≥ 80 mm
Temperature range	during operation	-20°C to +60°C
	during installation	0°C to +50°C

### Electrical properties at 20°C ± 5°C

Loop resistance		≤ 165 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 5000 MΩkm
Mutual capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Characteristic impedance	(1-100) MHz	(100 ± 5) Ω
Nominal velocity of propagation		ca. 79%
Propagation delay		≤ 427 ns/100m
Delay skew		≤ 12 ns/100m
Test voltage	(DC, 1 min) core/core and core/screen	1000 V

## Draka - UC900 SS23 Cat.7 S/FTP, LSHF bzw. LSHF-FR for industrial applications

Transfer impedance	at 1 MHz	10 mΩ/m
	at 10 MHz	10 mΩ/m
	at 30 MHz	30 mΩ/m
	at 100 MHz	60 mΩ/m
Coupling attenuation		85 dB

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

F MHZ	Attenuation dB/100m	NEXT dB	PS-NEXT dB	ACR dB/100m	PS-ACR dB/100m	ELFEXT dB/100m	PS-ELFEXT dB/100m	Return loss dB
1	1.8	100	97	98	95	105	105	27
4	3.4	100	97	97	94	105	102	30
10	5.4	100	97	95	92	97	94	30
16	6.8	100	97	93	90	93	90	30
20	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	17.4	100	97	83	80	77	74	30
125	19.5	95	92	75	72	75	72	26
155.5	21.9	94	91	72	69	73	70	26
175	23.3	93	90	70	67	72	69	25
200	25.0	92	89	67	64	71	68	25
250	28.1	90	87	62	59	69	66	24
300	30.9	89	86	58	55	67	64	24
450	38.3	87	84	48	45	64	61	23
600	44.8	85	82	40	37	61	58	22
750	52.0	83	80	31	28	59	56	21
900	59.4	82	79	23	20	58	55	20
1000	63.1	80	77	17	14	57	54	20

Outer diameter	9.5 mm
Fire load	878 MJ/km
	0.244 kWh/m
Weight	98 kg/km (LSHF); 114 kg/km (LSHF-FR)
Copper content	38
Tensile force	350 N

## Product variants & accessories

Art.-No.	Description
UC900-SS23-(L)H	Draka - UC900 SS23 Cat.7 S/FTP, LSHF bzw. LSHF-FR for industrial applications